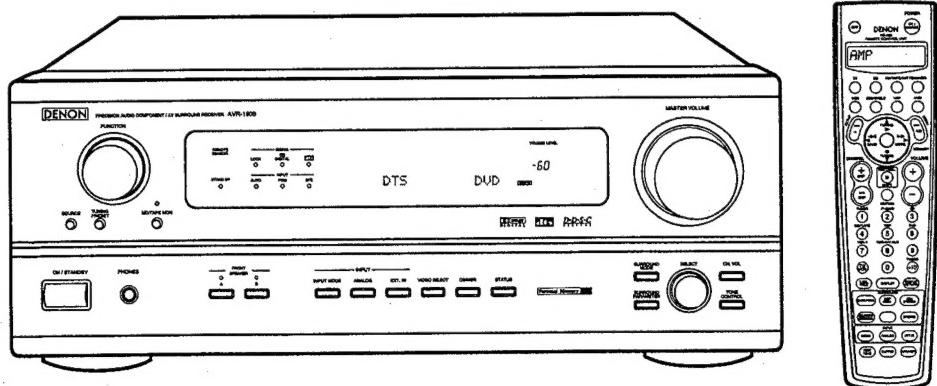


# DENON

Hi-Fi Component

## SERVICE MANUAL MODEL AVR-1800/87 AV SURROUND RECEIVER



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● Some illustrations using in this service manual are slightly different from the actual set.

**NIPPON COLUMBIA CO., LTD.**

## SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

### LEAKAGE CURRENT CHECK

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 millamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the unit is defective.

## SPECIFICATIONS

### AUDIO SECTION

#### (Power Amplifier)

Rated output:

(All properties shown are only for the power amplifier stage.)

Dynamic power:

Output terminals:

Stereo (2ch driven):

75 W + 75 W (8 Ω/ohms, 20 Hz ~ 20 kHz with 0.05 % T.H.D.)

110 W + 110 W (6 Ω/ohms, 1 kHz with 0.7 % T.H.D.)

100 W × 2 ch (8 Ω/ohms)

145 W × 2 ch (4 Ω/ohms)

170 W × 2 ch (2 Ω/ohms)

Surround/Center: 6 ~ 16 Ω/ohms

Front: A or B 6 ~ 16 Ω/ohms

A + B 8 ~ 16 Ω/ohms

#### (Analog)

Input sensitivity/input impedance:

200 mV/47 kΩ/kohms

Frequency response:

10 Hz ~ 50 kHz: +0, -3 dB

S/N:

102 dB

Distortion:

0.01 % (20 Hz ~ 20 kHz)

Rated output/maximum output:

1.2 V/7 V

#### (Digital)

D/A output:

Rated output - 2 V (at 0 dB playback)

Total harmonic distortion - 0.008% (1 kHz, at 0 dB)

S/N ratio - 102 dB

Dynamic range - 96 dB

Format - Digital audio interface

### (Phono equalizer (PHONO input-REC OUT))

Input sensitivity:

2.5 mV

RIAA deviation:

±1 dB (20 Hz to 20 kHz)

Signal-to-noise ratio:

74 dB (A weighting, with 5 mV input)

Rated output/Maximum output:

150 mV/7 V

Distortion factor:

0.03% (1 kHz, 3 V)

### VIDEO SECTION

#### (Standard Video Jacks)

Input/output level and impedance:

1 Vp-p, 75 Ω/ohms

Frequency response:

5 Hz ~ 10 MHz: +0, -3 dB

### TUNER SECTION

Receiving range:

[FM] (Note:  $\mu$ V at 75 Ω/ohms, 0 dBf =  $1 \times 10^{-15}$  W)

87.50 MHz ~ 107.90 MHz

(for North America model)

87.50 MHz ~ 108.00 MHz

(for Europe, China, Hong Kong,

Taiwan R.O.C. and Multiple voltage models)

1.0 μV (11.2 dBf)

MONO 1.6 μV (15.3 dBf)

STEREO 23 μV (38.5 dBf)

MONO 80 dB

STEREO 75 dB

MONO 0.15 %

STEREO 0.3 %

[AM]

520 kHz ~ 1710 kHz

(for North America model)

522 kHz ~ 1611 kHz

(for Europe, China, Hong Kong,

Taiwan R.O.C. and Multiple voltage models)

18 μV

### GENERAL

Power supply:

AC120 V, 60 Hz (for North America and Taiwan R.O.C. models)

AC230 V, 50 Hz (for Europe model)

AC220 V, 50 Hz (for China model)

AC115/230 V, 50/60 Hz (for Hong Kong and Multiple voltage models)

4.5 A (for North America model)

270 W (for Europe, China, Hong Kong, Taiwan R.O.C. and Multiple voltage models)

434 (W) × 171 (H) × 416 (D) mm (17-3/32" × 6-47/64" × 16-3/8")

Maximum external dimensions:

11.4 kg (25 lbs. 2 oz.)

### REMOTE CONTROL UNIT (RC-863: for North America, China, Hong Kong, Taiwan R.O.C. and Multiple voltage models) (RC-868: for Europe model)

Batteries:

R6P/AA Type (three batteries)

External dimensions:

61 (W) × 230 (H) × 34 (D) mm (2-13/32" × 9-1/16" × 1-11/32")

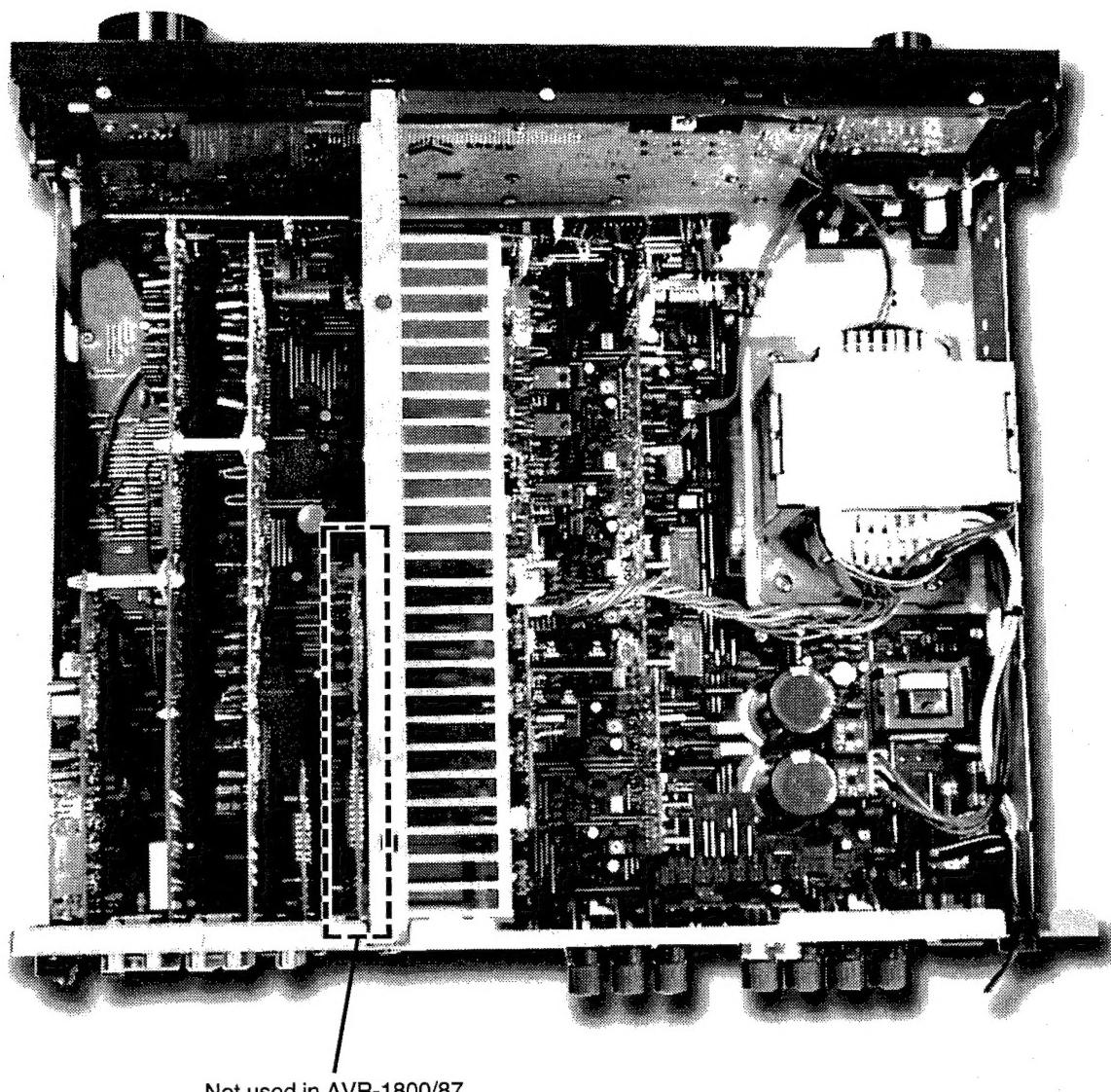
Weight:

200 g (Approx. 7 oz.) (including batteries)

## WIRE ARRANGEMENT

If wire bundles are untied or moved to perform adjustment or parts replacement etc., be sure to rearrange them neatly as they were originally bundled or placed afterward.  
Otherwise, incorrect arrangement can be a cause of noise generation.

### Wire arrangement viewed from the top

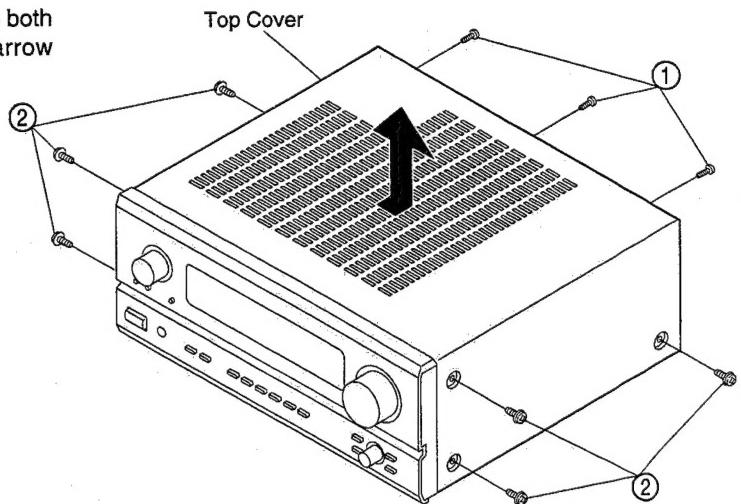


## DISASSEMBLY

(Follow the procedure below in reverse order when reassembling)

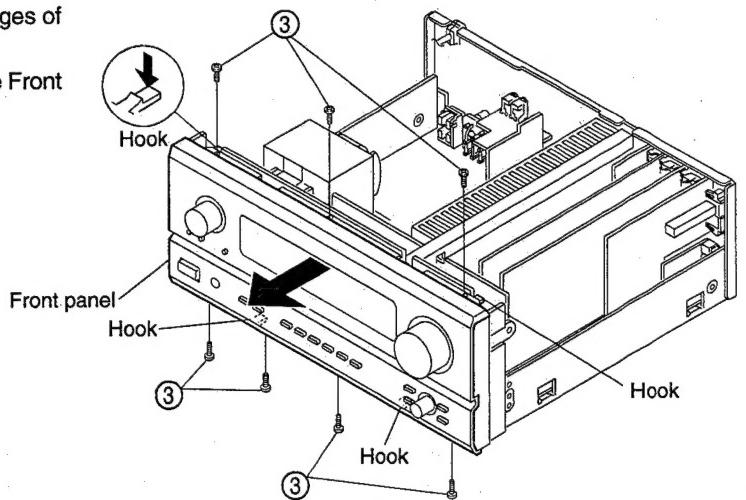
### 1. Top Cover

Remove 3 screws ① on the rear and 6 screws ② on both sides to detach the Top Cover as shown in the arrow direction.



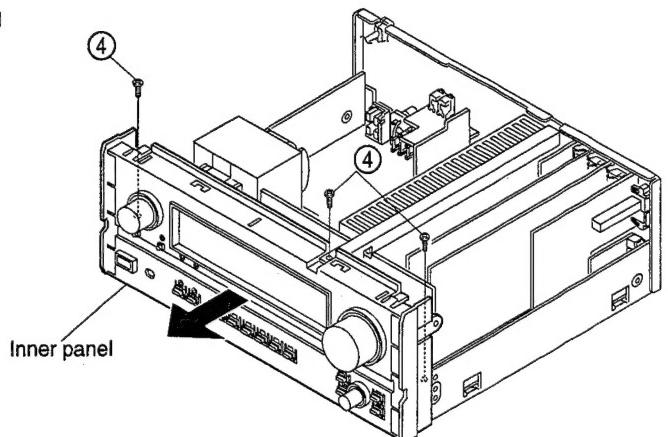
### 2. Front Panel

- (1) Remove 7 screws ③ from the top and bottom edges of the Front Panel.
- (2) Release 4 top and bottom hooks, then detach the Front Panel as shown in the arrow direction.



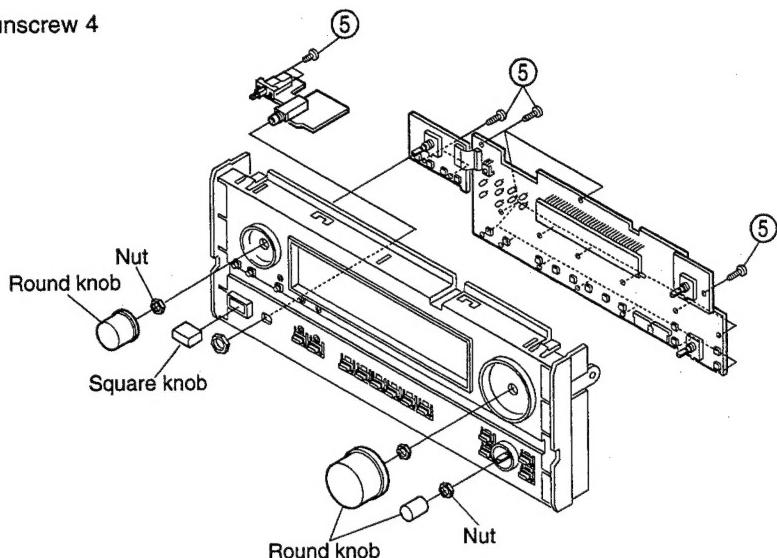
### 3. Inner Panel

Pull out the Inner Panel in the arrow direction after removing 3 screws ④.



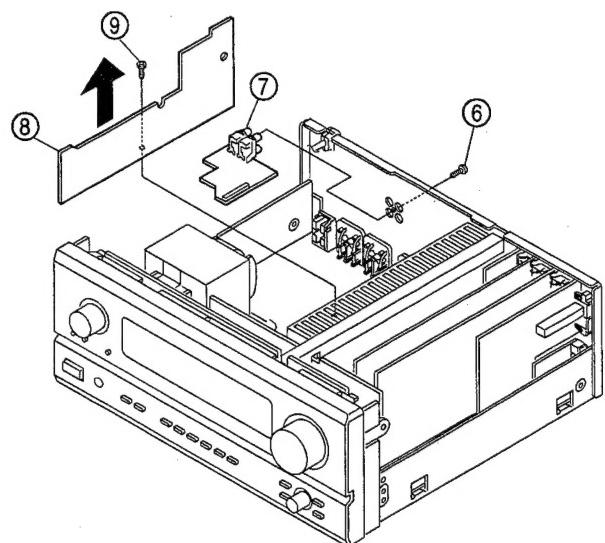
#### 4. Inner Panel Ass'y

- (1) Remove 3 round and 1 square knobs, and unscrew 4 nuts.
- (2) Remove 19 screws ⑤ fixing each P.W.B.



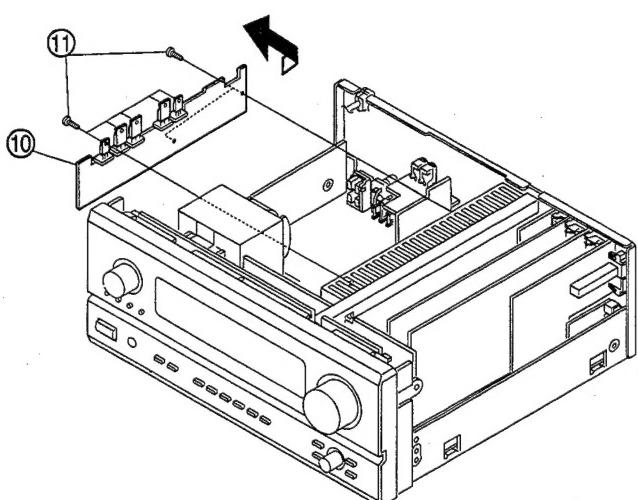
#### 5. Amp Unit

- (1) Remove 1 screw ⑥ to detach Pre-out Unit ⑦.
- (2) Take off the Amp Unit ⑧ as shown in the arrow direction after removing 1 screw ⑨.



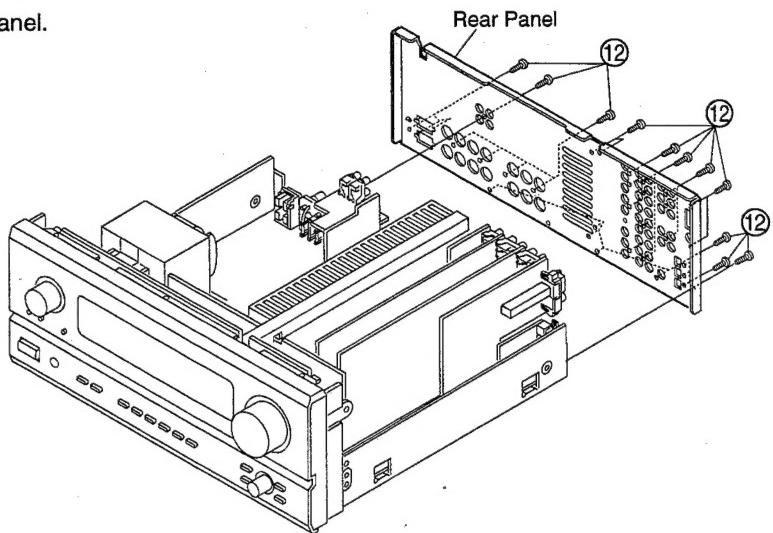
#### 6. Regulator Unit

Take off the Regulator Unit ⑩ as shown in the arrow direction after removing 8 screws ⑪.



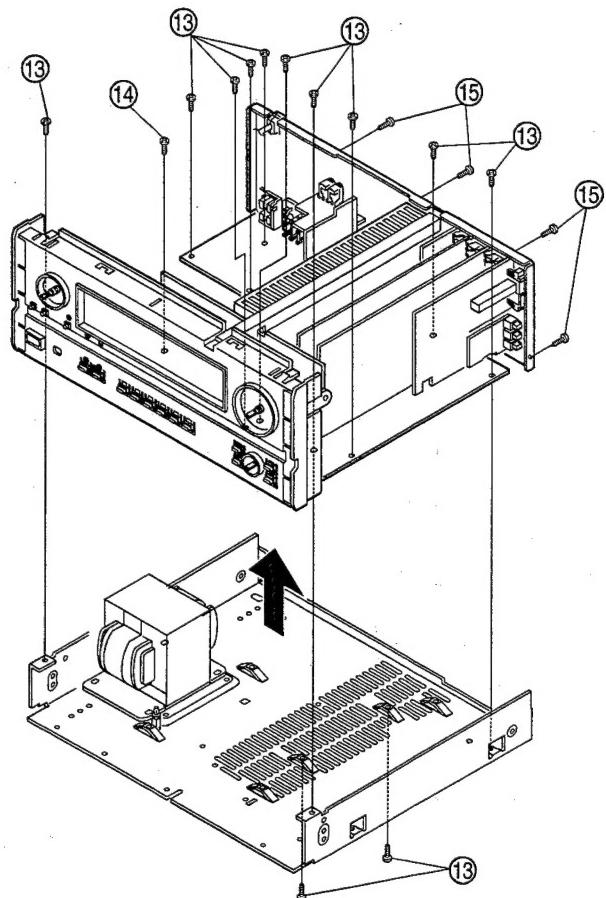
## 7. S-Video / C-video / Audio-in & DSP / Ext-in & VR / Digital-in / Tuner Unit

- (1) Remove 32 screws ⑫ to detach the Rear Panel.
- (2) Take off the objective P.W.B. upward.

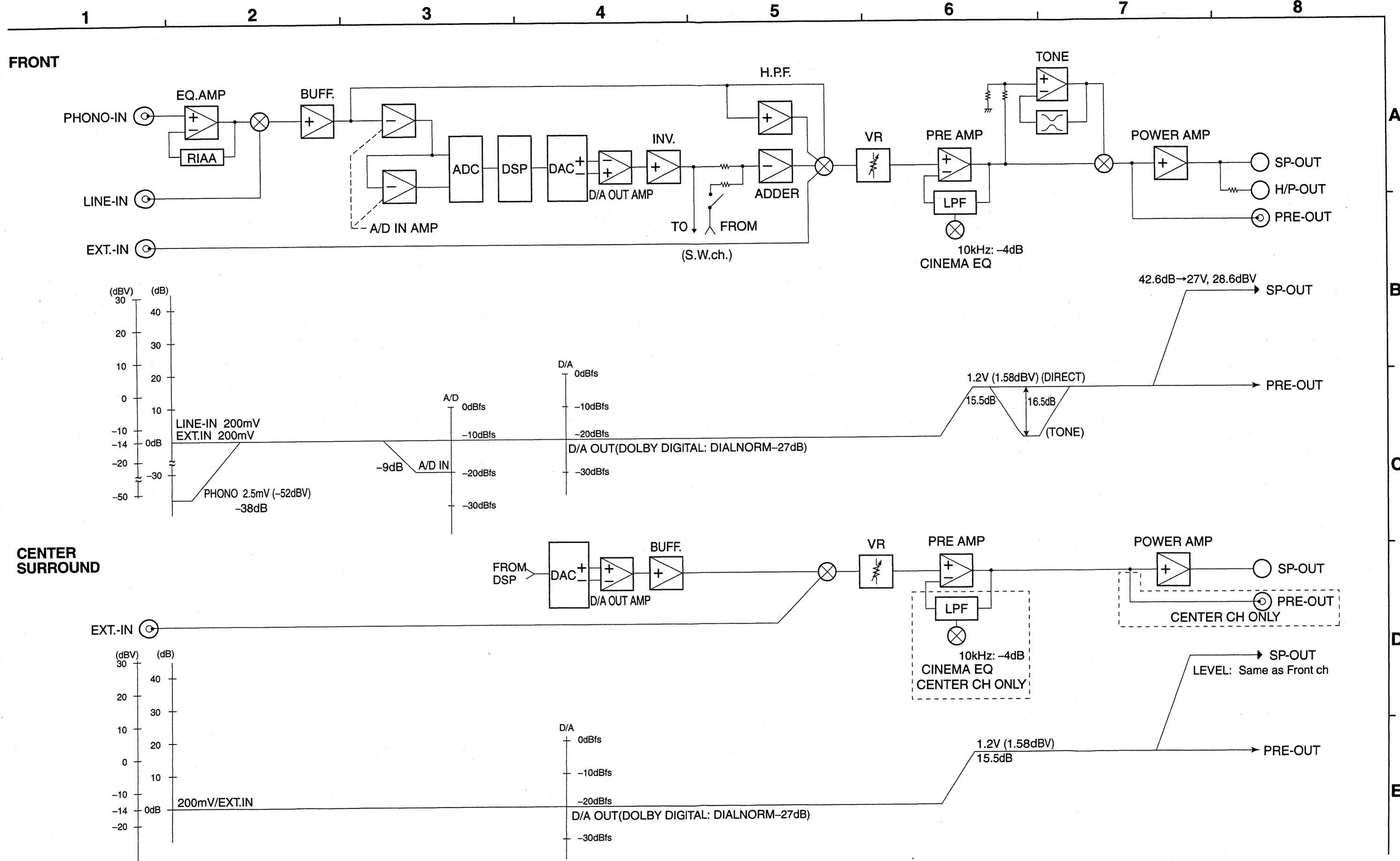


## 8. How to Check Power Amp / μ-com Unit with Power-on

- (1) Remove 12 screws ⑬, 1 screw ⑭, and 4 screws ⑮ fixing to the Chassis.
- (2) Pull up the Unit to separate from the Chassis.



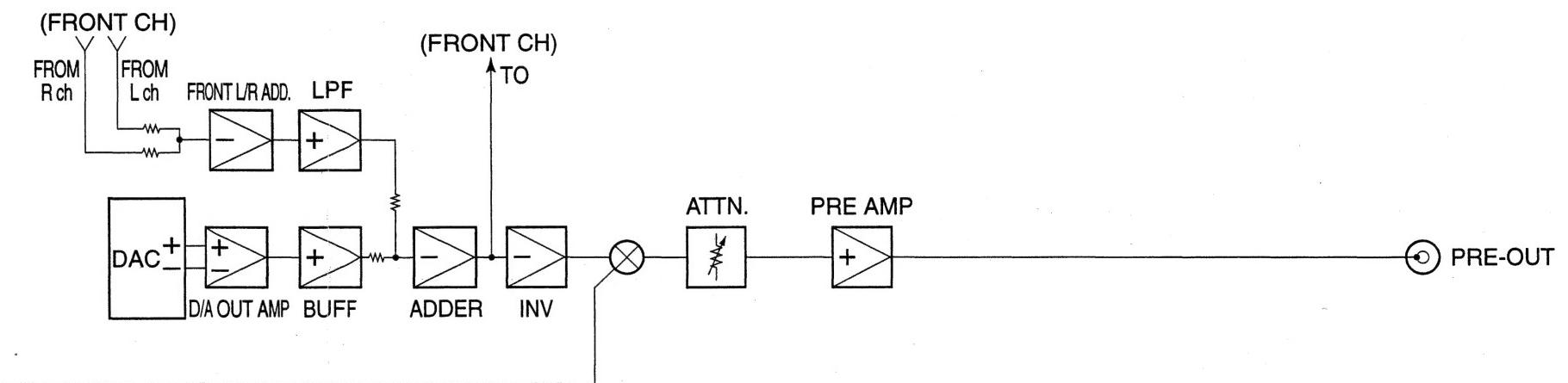
## LEVEL DIAGRAM



1 2 3 4 5 6 7 8

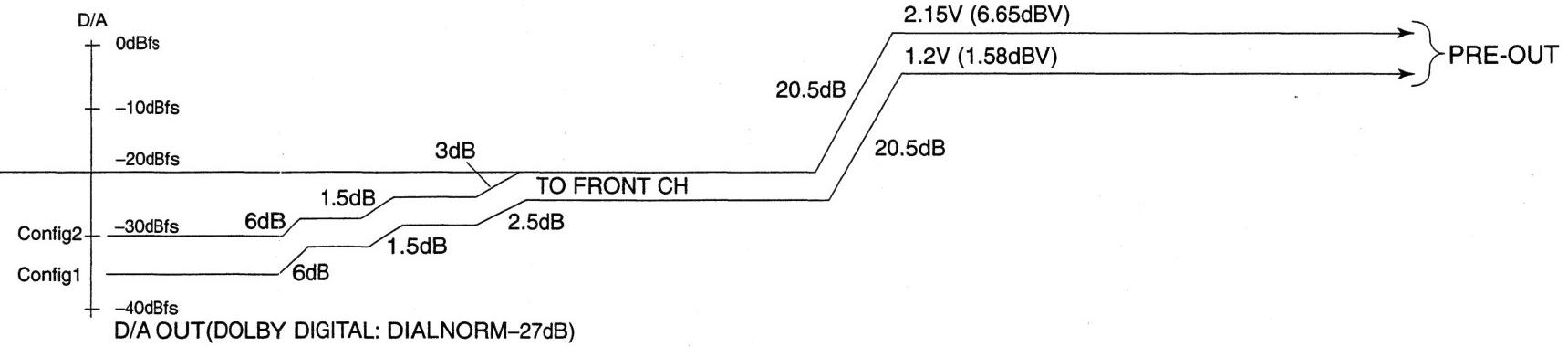
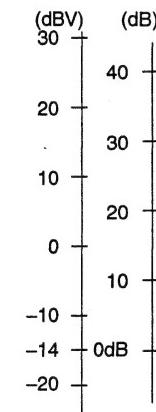
## SUBWOOFER

A



B

EXT.-IN

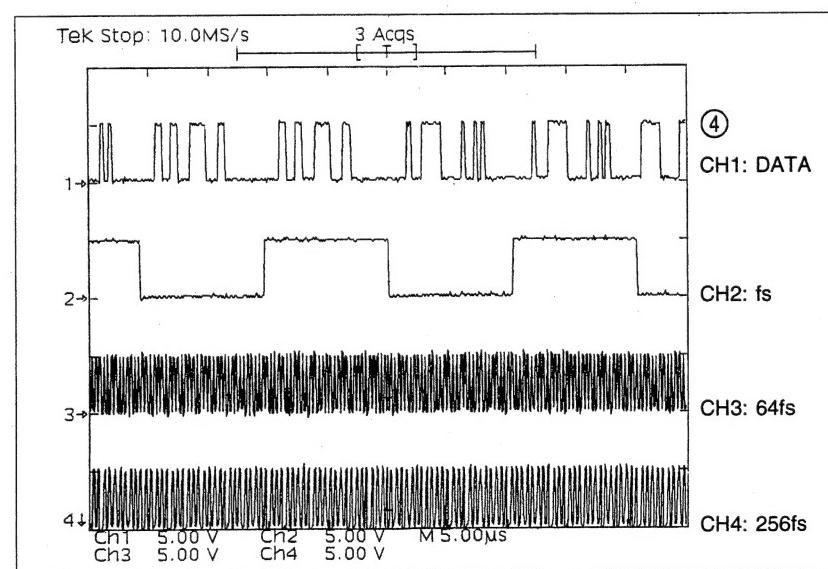
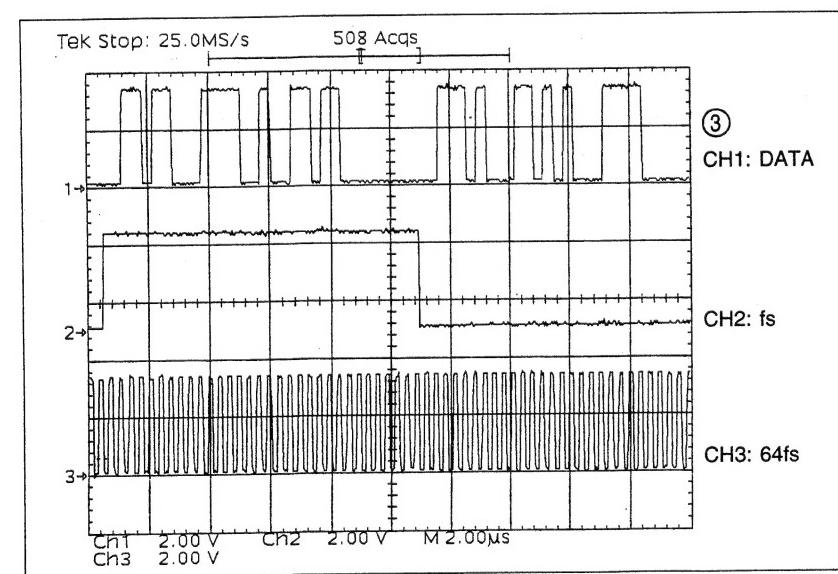
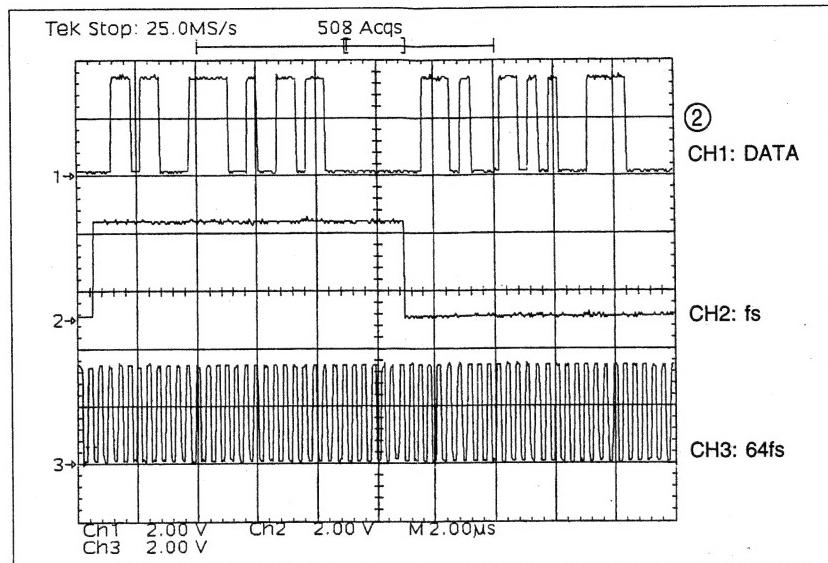
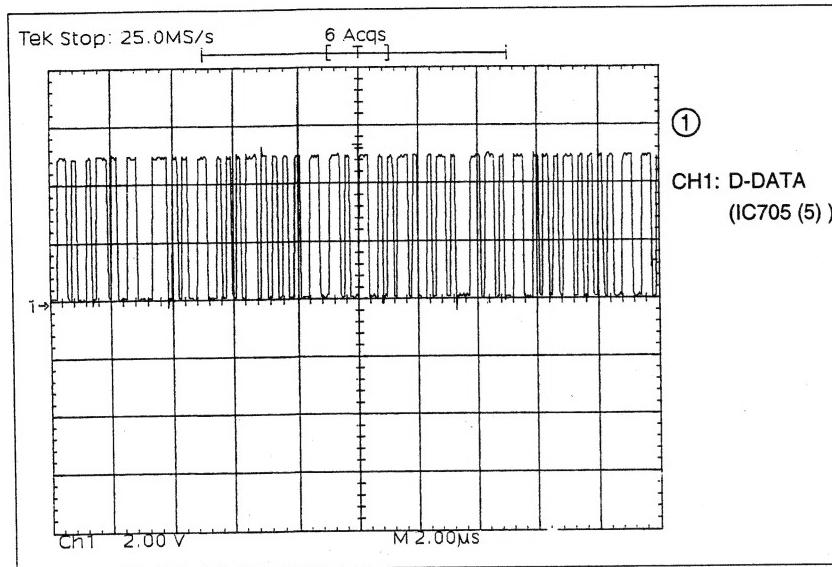


D

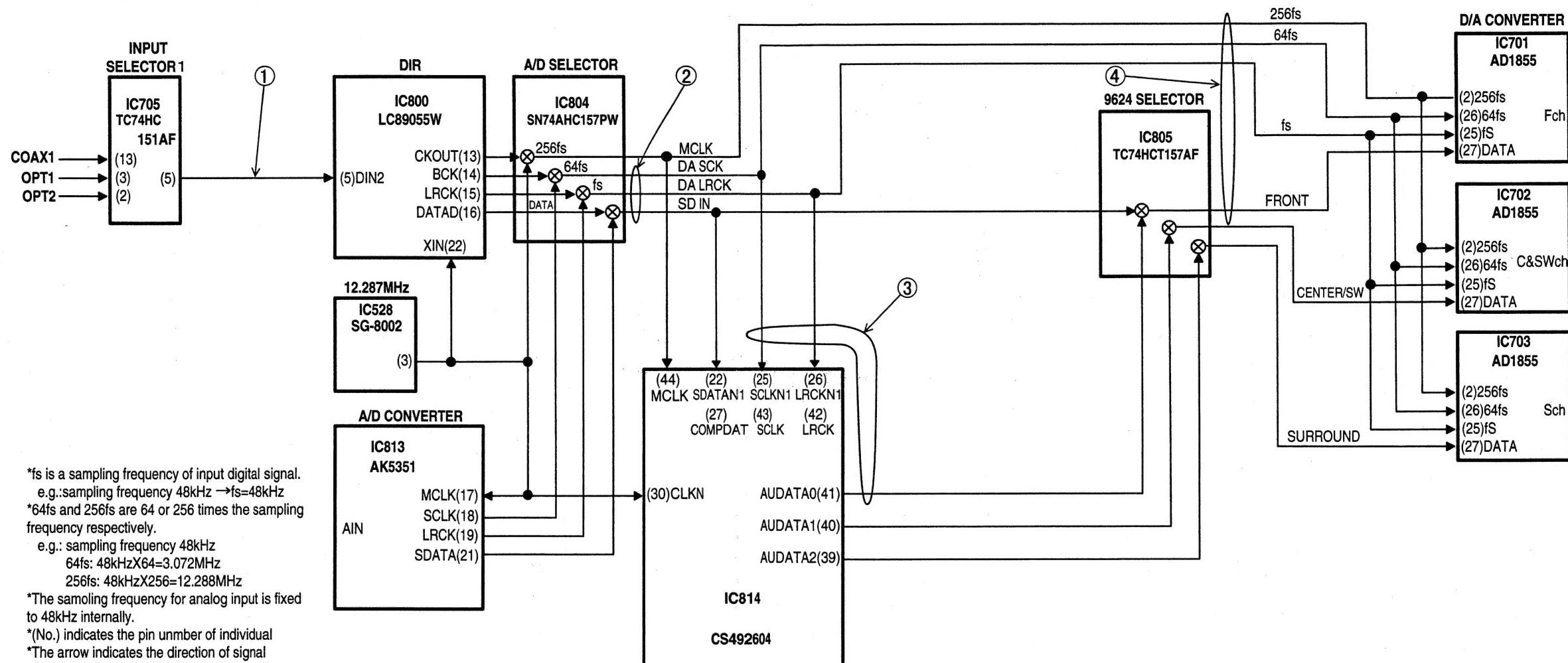
E

## CLOCK FLOW & WAVE FORM IN DIGITAL BLOCK

### Wave Form



1 2 3 4 5 6 7 8

**Clock Flow****A**\* $f_s$  is a sampling frequency of input digital signal.e.g.: sampling frequency 48kHz  $\rightarrow f_s=48\text{kHz}$ 

\*64fs and 256fs are 64 or 256 times the sampling frequency respectively.

e.g.: sampling frequency 48kHz  
64fs:  $48\text{kHz} \times 64 = 3.072\text{MHz}$ 256fs:  $48\text{kHz} \times 256 = 12.288\text{MHz}$ 

\*The sampling frequency for analog input is fixed to 48kHz internally.

\*(No.) indicates the pin number of individual

\*The arrow indicates the direction of signal as the input terminal pointed by the arrow and the output terminal by the opposite.

- DOLBY DIGITAL Decode
- DTS Decode
- Down-Mix Processing

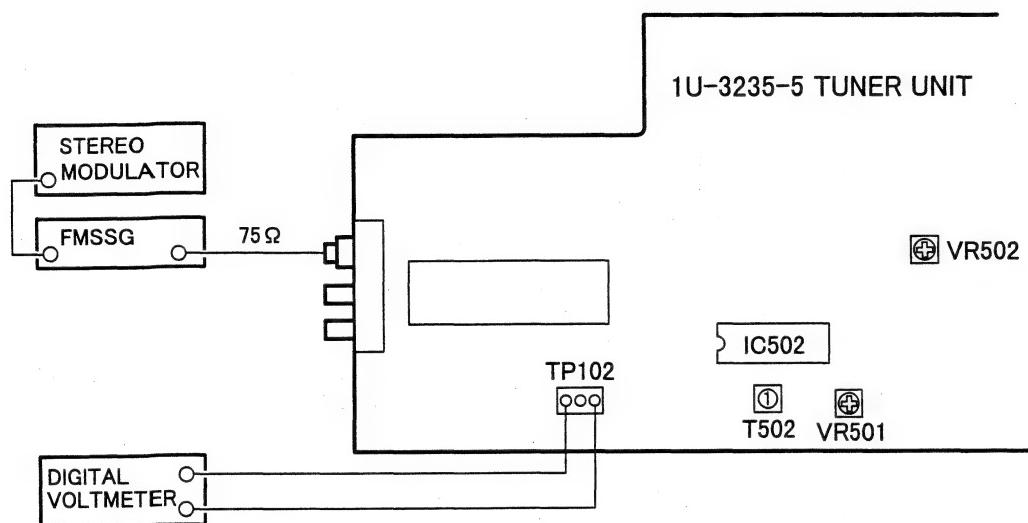
**E**

## ADJUSTMENT

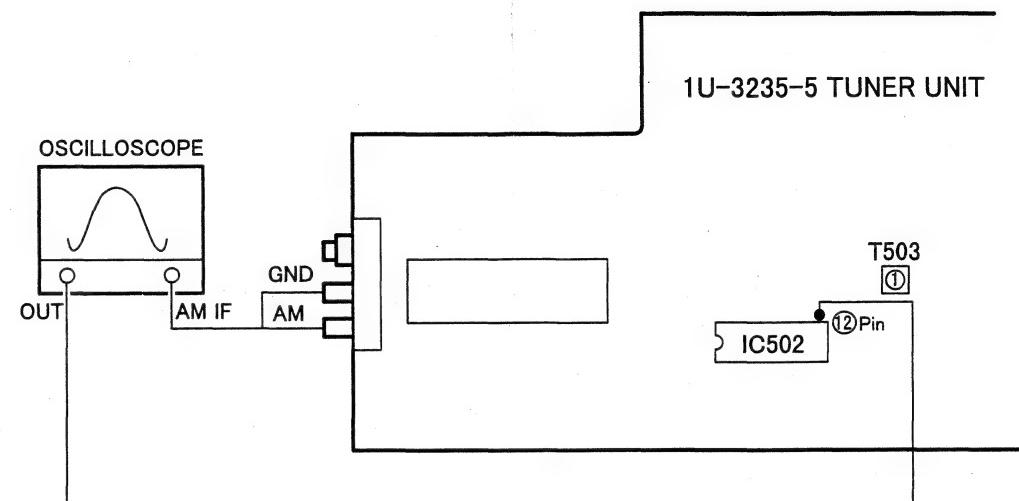
### Tuner Section

#### CONNECTION DIAGRAM OF MEASURING INSTRUMENTS

● FM



● AM



#### FM/MPX ALIGNMENT

Step	Alignment Item	Tuning Frequency Setting	Input					Output		Adjust		Remarks
			Type	Frequency	Input Level	Modulation	Coupling	Type	Connect to	Points	Adjust to	
1	Tuning Center	98.1 MHz	FM SSG	98.1 MHz	60 dB $\mu$	None	Antenna Terminal	Digital Voltmeter	TP102	T502	$\pm 50mV$	Function : FM Mode : Auto
2	Separation	98.1 MHz	FM SSG	98.1 MHz	60 dB $\mu$	Stereo (L) 1kHz 100%	Antenna Terminal	AC Voltmeter	AUDIO OUT Terminal (R)	VR502	Maximum Separation	—
3	Signal Level	98.1 MHz	FM SSG	98.1 MHz	20 dB $\mu$	Off	Antenna Terminal	—	—	VR501	Light "TUNED" FLD Character	—

#### AM ALIGNMENT

Step	Alignment Item	Frequency	Input	Output		Adjustment		Remarks
				Type	Connect to	Points	Adjust to	
1	IF	—	IF SWEEP (Input level is not over to work A.G.C.)	Oscilloscope	IC502 12Pin	T503	Maximum height and best symmetry curve	

## **Audio Section**

## **Idling Current (1U-3232-1)**

Required measurement equipment : DC Voltmeter

## **Preparation**

- (1) Avoid direct blow from an air conditioner or an electric fan, and adjust the unit at normal room temperature 15 °C ~ 30 °C (59 °F ~ 86 °F).

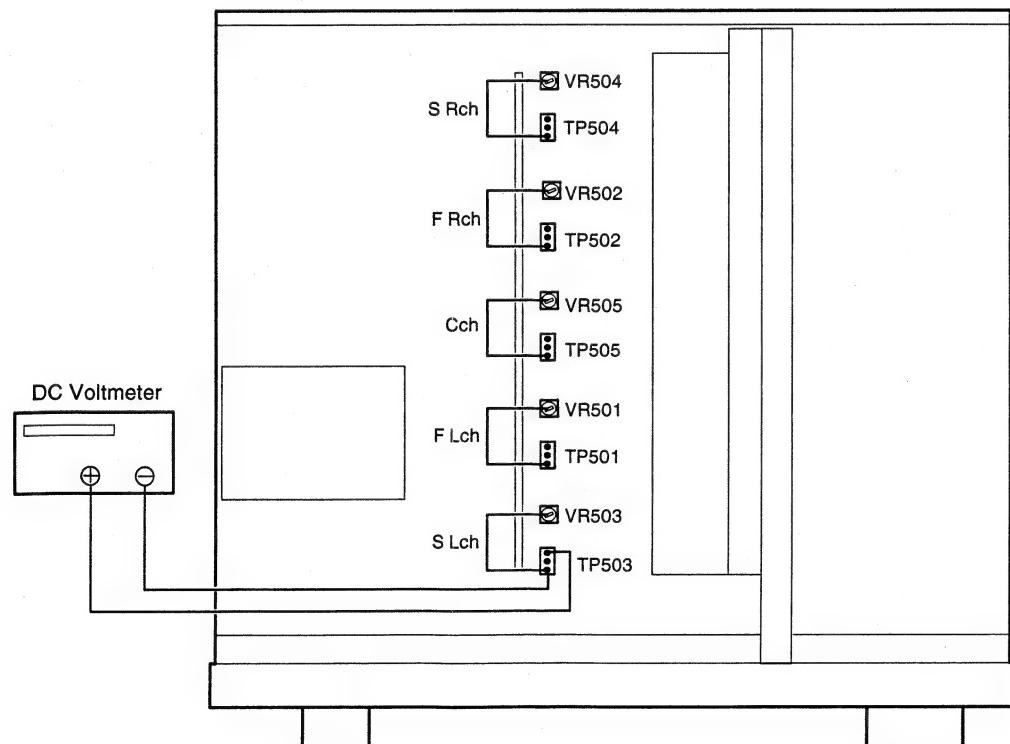
(2) Presetting

  - POWER (Power source switch) → OFF
  - SPEAKER (Speaker terminal) → No load (Do not connect speaker, dummy resistor, etc.)

## Adjustment

- (1) Remove top cover and set VR501, VR502, VR503, VR504, VR505, on 1U-3232-1 (Power Unit) at counterclockwise (○) fully.
  - (2) Connect DC Voltmeter to test points (FRONT-Lch: TP501, FRONT-Rch: TP502, CENTER ch: TP505, SURROUND-Lch: TP503, SURROUND-Rch: TP504).
  - (3) Connect power cord to AC Line, and turn power switch "ON".
  - (4) Presetting.

MASTER VOLUME	: "--" counterclockwise (○ min.)
MODE	: 5CH STEREO
FUNCTION	: CD
  - (5) Allow 2 minutes, and turn VR501 clockwise (○) and adjust the TEST POINT voltage to  $1.5 \text{ mV} \pm 0.5 \text{ mV}$  DC.
  - (6) After 10 minutes from preset, turn VR501 to set the voltage to  $3 \text{ mV} \pm 0.5 \text{ mV}$  DC.
  - (7) Adjust the Variable Resistors of other channels in the same way.
  - (8) After 5 minutes from (6), turn VR501 to set the voltage to  $3 \text{ mV} \pm 0.5 \text{ mV}$  DC.
  - (9) Adjust the Variable Resistors of other channels in the same way.



## SEMICONDUCTORS

## ● IC's

**Note:** Abbreviation ahead of IC No.  
indicates the name of P.W.B.

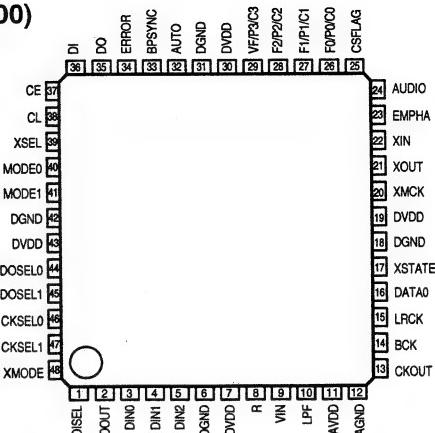
PO: Power P.W.B.

**EX: Exit in P.W.B.**

CO: Control P.W.B.

RE: Regulator P.W.B.

LC89055W (AU: IC800)

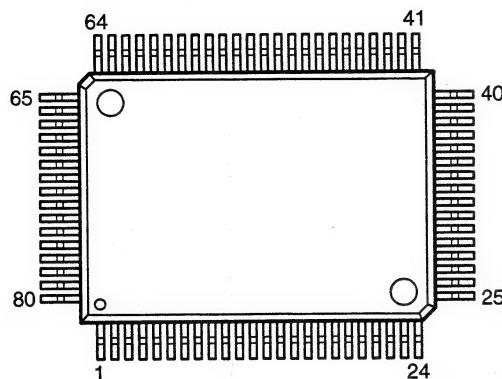


LC89055W Terminal Function

Pin No.	Pin Name	I/O	Function
1	DISEL	I	Data input terminal (select input pin of DIN0, DIN1)
2	DOUT	O	Input bi-phase data through output terminal
3	DIN0	I	Amp built-in coaxial/optical input correspond data input terminal
4	DIN1	I	Amp built-in coaxial/optical input correspond data input terminal
5	DIN2	I	Optical input correspond data input terminal
6	DGND		Digital GND
7	DVDD		Digital power supply
8	R	I	VCO gain control input terminal
9	VIN	I	VCO free-run frequency setting input terminal
10	LPF	O	PLL loop filter setting terminal
11	AVDD		Analog power supply
12	AGND		Analog GND
13	CKOUT	O	Clock output terminal (256fs, 384fs, 512fs, X'tal osc., VCO free-run osc.)
14	BCK	O	64fs clock output terminal
15	LRCK	O	fs clock output terminal (L: Rch, H: Lch, I2S: Reverse)
16	DATA0	O	Data output terminal
17	XSTATE	O	Input data detecting result output terminal
18	DGND		Digital GND
19	DVDD		Digital power supply
20	XMCK	O	X'tal osc. clock output terminal (24.576MHz or 12.288MHz)
21	XOUT	O	X'tal osc. connection output terminal
22	XIN	I	X'tal osc. connection output terminal
23	EMPHA	O	Emphasis information output terminal of channel status
24	AUDIO	O	Bit1 output terminal of channel status
25	CSFLAG	O	Top 40bit revise flag output terminal of channel status
26	F0/P0/C0	O	Input fs cal. sig. out / data type out / input word inf. output terminal
27	F1/P1/C1	O	Input fs cal. sig. out / data type out / input word inf. output terminal
28	F2/P2/C2	O	Input fs cal. sig. out / data type out / input word inf. output terminal
29	VF/P3/C3	O	Validity flag out / data type out / input word inf. output terminal
30	DVDD		Digital power supply
31	DGND		Digital GND
32	AUTO	O	Non PCM burst data transfer detect sig. output terminal
33	BPSYNC	O	Non PCM burst data preamble Pa, Pb, Pc, Pd sync sig. output terminal
34	ERROR	O	PLL lock error, data error flag output terminal
35	DO	O	CPU I/F read data output terminal
36	DI	I	CPU I/F write data input terminal
37	CE	I	CPU I/F chip enable input terminal
38	CL	I	CPU I/F clock input terminal
39	XSEL	I	Frequency select input pin of XIN X'tal osc. (24.576MHz or 12.288MHz)
40	MODE0	I	Mode setting input terminal
41	MODE1	I	Mode setting input terminal
42	DGND		Digital GND
43	DVDD		Digital power supply
44	DOSEL0	I	Data output format select input terminal
45	DOSEL1	I	Data output format select input terminal
46	CKSEL0	I	Output clock select input terminal
47	CKSEL1	I	Output clock select input terminal
48	XMODE	I	Reset input terminal

\* For latch-up countermeasure, set digital (DVDD) and analog (AVDD) power on/off in the same timing.

**TMP88CU74F  
(CO: IC303)**



**TMP88CU74F Terminal Function**

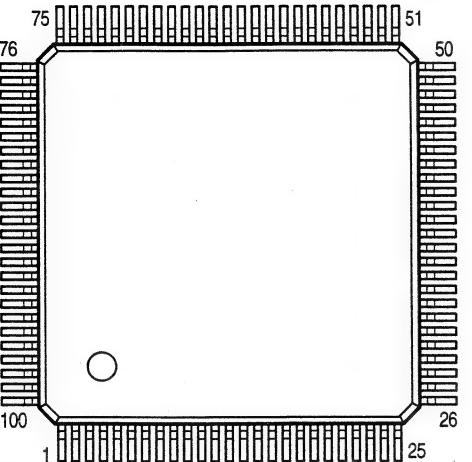
Pin No.	Name	Symbol	I/O	Type	Op	Det	Res	Init	Function
1	P02/S01	RDS RESET	O	C	—	—	Z	L	RDS reset output (LC7074)
2	P03		O	C	—	—	Z	L	Fixed to L
3	P04	ST/MONO	O	C	—	—	Z	L	STEREO/MONO control signal, L: STEREO
4	P05	PLFL DATA	O	C	—	—	Z	L	PLL, FL control terminal (LC72131 & LC75721NE)
5	P06	PLL STB	O	C	—	—	Z	L	PLL control terminal (LC72131)
6	P07	PLFL CLK	O	C	—	—	Z	L	PLL, FL control terminal (LC72131 & LC75721NE)
7	Vss	Vss	I	—	GND	—	—	L	GND
8	Xout	Xout	O	—	—	—	—	—	XTAL
9	Xin	Xin	I	—	—	—	—	—	XTAL
10	RESET_	RESET_	I	—	Eu	Lv	L	—	Reset input
11	P22/XTOUT	TUNED_	I	—	Eu	Lv	Z	—	Tuning detect, L: Tuned
12	P21/XTIN	STEREO_	I	—	Eu	Lv	Z	—	L: At stereo receive
13	TEST	TEST	I	—	GND	S	—	—	Connect to GND
14	P20/INT5_	B.DOWN_	I	—	Eu	Lv	Z	—	Power down detect, L: Power down
15	P10/INT0_	PROTECT_	I	—	Ed	E&L	Z	—	PROTECTION detect input, H: Detect
16	P11/INT1	RDS START	I	—	—	—	Z	L	RDS data input (LC7074)
17	P12		O	C	—	—	Z	L	Fixed to L
18	P13		O	C	—	—	Z	L	Fixed to L
19	P14		O	C	—	—	Z	L	Fixed to L
20	P15/INT3	REMOCON	I	—	Ed	E&L	Z	—	Remote control signal input
21	P16/INT2	ACK	O	C	—	—	Z	L	MAIN-SUB CPU comm. control terminal
22	P17/INT4	REQ	I	—	Eu	—	Z	L	MAIN-SUB CPU comm. control terminal
23	P30/SCL	SI	I	C	—	—	—	—	MAIN-SUB CPU comm. control terminal
24	P31/SDA	SO	O	C	—	—	—	—	MAIN-SUB CPU comm. control terminal
25	P32/SCK0_	CLK	O	C	—	—	—	—	MAIN-SUB CPU comm. control terminal
26	P40/AIN0	MODE	I	—	Eu	Lv	Z	—	Destination switching input
27	P41/AIN1	KEY1	I	—	Eu	Lv	Z	—	Button input 1
28	P42/AIN2	KEY2	I	—	Eu	Lv	Z	—	Button input 2
29	P43/AIN3	KEY3	I	—	Eu	Lv	Z	—	Button input 3
30	P44/AIN4	FUNC STB1	O	C	—	—	Z	—	Function control output (TC9274N), INPUT
31	P45/AIN5	FUNC/T. CON CLK	O	C	—	—	Z	L	Function control output (TC9274N, TC9273), TONE control output (TC9184P)
32	P46/AIN6	FUNC/T. CON DATA	O	C	—	—	Z	L	Function control output (TC9274N, TC9273), TONE control output (TC9184P)
33	P47/AIN7	FUNC STB2	O	C	—	—	Z	L	Function control output (NJU7313), 6CH EXT. IN
34	P50/AIN8	E.VOL STB	O	C	—	—	L	L	Elect. volume control output (TC9459)
35	P51/AIN9	TONE STB	O	C	—	—	L	L	TONE control output (TC9184P)
36	P52/AIN10	E.VOL DATA	O	C	—	—	L	H	Elect. volume control output (TC9459)
37	P53/AIN11	E.VOL CLK	O	C	—	—	L	H	Elect. volume control output (TC9459)
38	VASS	VASS	I	—	—	—	—	—	Ref. volt (GND)
39	VAREF	VAREF	I	—	—	—	—	—	Ref. volt (VDD)
40	VDD	VDD	I	—	—	—	—	—	Power supply

Pin No.	Name	Symbol	I/O	Type	Op	Det	Res	Init	Function
41	P60	FL CE	O	P	Ed	S	L	H	FL display control output (LC75712NE)
42	P61	FL RES	O	P	Ed	S	L	H	FL display control output (LC75712NE)
43	P62		O	P	Ed	—	Z	L	Fixed to L
44	P63	FA-RELAY	O	P	Id	—	L	L	Front SP relay A control terminal, L: Mute
45	P64	FB-RELAY	O	P	Id	—	L	L	Front SP relay B control terminal, L: Mute
46	P65	C-RELAY	O	P	Id	—	L	L	Center SP relay control terminal, L: Mute
47	P66	S-RELAY	O	P	Id	—	L	H	Surround SP relay control terminal, L: Mute
48	P67	PRE F MUTE	O	P	Ed	—	L	H	Front PRE OUT mute control terminal, L: Mute
49	P70	PRE C MUTE	O	P	Ed	—	L	L	Center PRE OUT mute control terminal, L: Mute
50	P71	PRE S MUTE	O	P	Ed	—	L	L	Surround PRE OUT mute control terminal, L: Mute
51	P72	SUB WOOFER MUTE	O	P	Ed	—	L	H	Sub-woofer PRE OUT mute control terminal, L: Mute
52	P73	H/P RELAY	O	P	Id	—	L	H	H/P OUT relay control terminal, L: Mute
53	P74	EXP OE	O	P	Ed	—	L	H	Port expander control terminal (TC4094B)
54	P75	EXP CLK	O	P	Ed	—	L	L	Port expander control terminal (TC4094B)
55	P76	EXP DATA	O	P	Ed	—	L	L	Port expander control terminal (TC4094B)
56	P77	EXP STB	O	P	Ed	—	L	L	Port expander control terminal (TC4094B)
57	P80	POWER	O	P	Id	—	L	H	Power relay control output, H: ON
58	P81	RESET2	O	P	Id	—	L	L	Reset signal output to sub-CPU, H: Reset
59	P82	SUB-CPU-B-DOWN	O	P	Id	—	L	L	B-DOWN signal output to sub-CPU
60	P83	TAPE MON. LED	O	P	Id	—	L	L	TAPE MONITOR LED indicator control, H: MONITOR
61	P84	STANDBY	O	P	Id	—	L	H	Standby LED drive output H: Light
62	P85	(DIRECT)	O	P	Id	—	L	L	DIRECT relay control, H: DIRECT
63	P86	(S1)	O	P	Id	—	L	—	Video signal switching control output
64	P87	(S2)	O	P	Id	—	L	—	Fixed to L
65	P90	TUNER MUTE	O	P	Ed	—	L	H	TUNER mute control terminal, H: Mute
66	P91		O	P	Id	—	L	H	Not Used
67	P92		O	P	Id	Lv	Z	—	Fixed to L
68	P93		O	P	Id	Lv	Z	—	Fixed to L
69	P94		O	P	Id	Lv	Z	—	Fixed to L
70	P95	SEL A (M)	I	—	Eu	Lv	Z	—	Master volume rotation detect input (rotary encoder)
71	P96	SEL B (M)	I	—	Eu	Lv	Z	—	Master volume rotation detect input (rotary encoder)
72	P97	CINEMA EQ	O	P	Eu	Lv	Z	L	CINEMA EQ control output, H: ON
73	PD0	VOL MUTE	O	P	Ed	—	L	L	Master volume minimum control, L: Min.
74	PD1	SEL C (S)	I	—	Eu	Lv	Z	—	Surround mode rotation detect input (rotary encoder)
75	PD2	SEL D (S)	I	—	Eu	Lv	Z	—	Surround mode rotation detect input (rotary encoder)
76	PD3	SEL E (F)	I	—	Eu	Lv	Z	—	Input selector switch rotation detect input (rotary encoder)
77	PD4	SEL F (F)	I	—	Eu	Lv	Z	—	Input selector switch rotation detect input (rotary encoder)
78	Vkk	Vkk	—	—	—	—	—	—	GND fixed
79	P00/SCK1_	RDS CLK	I	—	—	S	Z	—	RDS clock input (LC7074)
80	P01/SI1	RDS DATA	I	—	—	S	Z	—	RDS data input (LC7074)

**NOTE:**

- Pin No. : Terminal number of microcomputer.  
 Port Name : The name entered in the data sheet of microcomputer.  
 Symbol : Symbolized interface function.  
 I/O : Input or out of part.  
 "I" = Input port  
 "O" = Output port  
 Type : Composition of port in case of output port.  
 "C" = CMOS output  
 "N" = NMOS open drain output  
 "P" = PMOS open drain output  
 Op : Pull up/Pull down selection information.  
 "U" = Inner microcomputer pull up  
 "Id" = Inner microcomputer pull down  
 "Eu" = External microcomputer pull up  
 "Ed" = External microcomputer pull down  
 Det : Indicates judging state of input port. Level detection is "LV"; Edge detection is "Ed"; Detection by both shifting is "E&L"; Serial data detection is "S" (Serial data output is also "S").  
 Res : State at reset.  
 "H" = Outputs High Level at reset  
 "L" = Outputs Low Level at reset  
 "Z" = Becomes High Impedance mode at reset  
 Ini : Initial output state.  
 Function : Function and logical level explanation of signals to be interface.

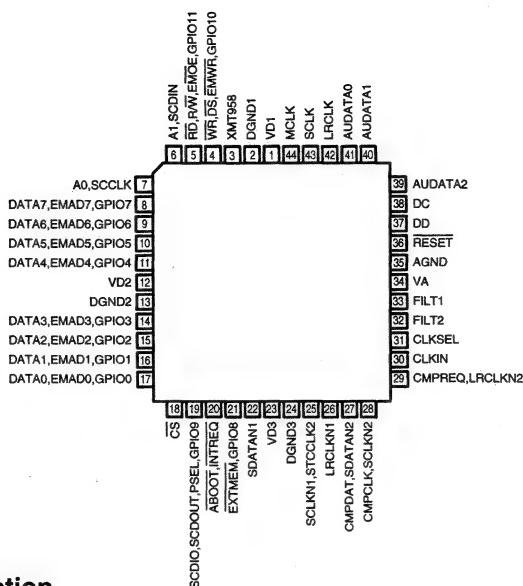
## TMP93CS41F (AU: IC301)



## TMP93CS41F Terminal Function

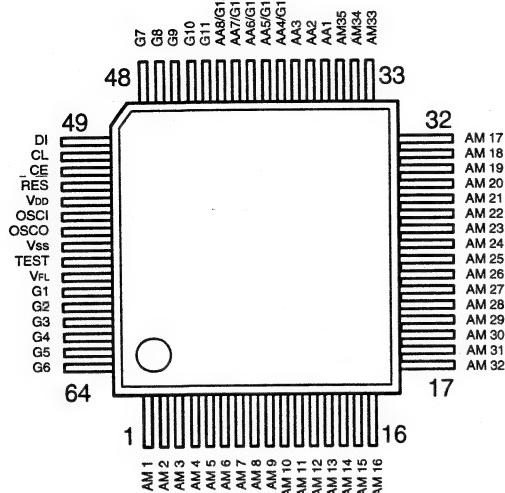
Pin No.	Name	Symbol	I/O	Type	Op	Det	Res	Init	Function
1	V REFL		—	—	—	—	—	—	A/D ref. GND
2	A Vss	←	—	—	—	—	—	—	A/D GND
3	A Vcc	←	—	—	—	—	—	—	AD +5V
4	_NMI	I	—	—	—	—	—	—	Not used (fixed to H)
5	P70/TI0	C15	O	C	—	—	L	L	Fixed to L (DSP ROM address cont. out bit 15, not used)
6	P71/TI1	C16	O	C	—	—	L	L	DSP program ROM address cont. output bit 16
7	P72/TI2	C17	O	C	—	—	L	L	DSP program ROM address cont. output bit 17
8	P73/TI3		O	C	—	—	L	L	
9	P80/INT4/TI4	_INTREQ	I/O	C	Eu	E↓&L	Z	—	DSP request input and cont. output (L: Rq & cont.)
10	P81/INT5/TI5	B_DOWN_	I	—	Eu	E↑&L	Z	—	Power down detect (H: Detected)
11	P82/TO4	DSP SS	O	C	—	—	H	H	DSP chip select cont. output (L: Data out)
12	P83/TO5	_REQ	O	C	Eu	—	H	L	MAIN-SUB CPU comm. control output (L: Comm. request from sub)
13	P84/INT6/TI6	_ACK	I	—	Eu	E↓&L	—	—	MAIN-SUB CPU comm. control input (L: Ack. return from main)
14	P85/INT7/TI7	ERR	I	—	—	E↑&L	—	—	DIR control input terminal (LC89055Q) (H: ERR)
15	P86/TO6	_DSP RESET	O	C	—	—	L	L	DSP reset output terminal (L: Reset)
16	P87/INT0	_CS	I	—	—	E↑&L	—	—	DIR control input terminal (LC89055Q), when CH status change L→H
17	P90/TXD0	SI	O	C	—	—	—	—	MAIN-SUB CPU comm. control terminal (data output)
18	P91/RXD0	SO	I	—	—	—	—	—	MAIN-SUB CPU comm. control terminal (data input)
19	P92/_CTS0/SCLK0	CLK	I	C	—	—	—	—	MAIN-SUB CPU comm. control terminal (I2C clock in/output)
20	P93/TXD1	DSP DATA	O	C	—	—	L	L	DSP data output terminal
21	P94/RXD1	DSP SO	I	—	—	Lv	—	—	DSP status data input terminal
22	P95/SCLK1	DSP CLK	O	C	—	—	Z	L	DSP data clock output terminal
23	AM8/_16	←	—	—	—	—	—	—	Fixed to +5V
24	CLK	O	C	Eu	—	—	—	—	
25	Vcc	←	—	—	—	—	—	—	+5V
26	Vss	I/O1	—	—	—	—	—	—	GND
27	X1	Xin	I	—	—	—	—	—	X'tal connection
28	X2	Xout	O	—	—	—	—	—	X'tal connection
29	_EA	←	—	—	—	—	—	—	Fixed to GND
30	_RESET	RESET2_	I	—	Eu	Lv	L	—	Reset input (controlled by main CPU)
31	P96/XT1	A/D RESET	O	N	Eu	—	H	H	A/D control terminal (L: Reset)
32	P97/XT2		O	C	Ed	—	L	L	
33	TEST1	←	I	—	—	—	—	—	Connected to TEST2
34	TEST2	←	I	—	—	—	—	—	Connected to TEST1
35	PA0	DINA	O	C	Ed	—	L	L	Digital input switching control output
36	PA1	DINB	O	C	Ed	—	L	L	Digital input switching control output
37	PA2	DINC	O	C	Ed	—	L	L	Digital input switching control output
38	PA3		O	C	Ed	—	L	L	
39	PA4	DIRECT	O	C	Ed	—	L	L	Digital direct data switch cont. terminal (H: Direct)
40	PA5		O	C	Ed	—	L	L	

Pin No.	Name	Symbol	I/O	Type	Op	Det	Res	Init	Function
41	PA6	DEEMP	O	C	Ed	—	L	L	DAC de-emphasis filter cont. out terminal (H: ON)
42	PA7/SCOUT	96k-DAC	O	C	—	—	Z	L	DAC control terminal (H: Sample frequency 96kHz)
43	ALE	←	O	C	—	—	L	L	Address latch enable
44	Vcc	—	—	—	—	—	—	—	+5V
45	P00/AD0	AD0	I/O	C	—	—	Z	L	EPROM data in D0 / address out A0
46	P01/AD1	AD1	I/O	C	—	—	Z	L	EPROM data in D1 / address out A1
47	P02/AD2	AD2	I/O	C	—	—	Z	L	EPROM data in D2 / address out A2
48	P03/AD3	AD3	I/O	C	—	—	Z	L	EPROM data in D3 / address out A3
49	P04/AD4	AD4	I/O	C	—	—	Z	L	EPROM data in D4 / address out A4
50	P05/AD5	AD5	I/O	C	—	—	Z	L	EPROM data in D5 / address out A5
51	P06/AD6	AD6	I/O	C	—	—	Z	L	EPROM data in D6 / address out A6
52	P07/AD7	AD7	I/O	C	—	—	Z	L	EPROM data in D7 / address out A7
53	P10/AD8/A8	A8	O	C	—	—	Z	L	EPROM address out A8
54	P11/AD9/A9	A9	O	C	—	—	Z	L	EPROM address out A9
55	P12/AD10/A10	A10	O	C	—	—	Z	L	EPROM address out A10
56	P13/AD11/A11	A11	O	C	—	—	Z	L	EPROM address out A11
57	P14/AD12/A12	A12	O	C	—	—	Z	L	EPROM address out A12
58	P15/AD13/A13	A13	O	C	—	—	Z	L	EPROM address out A13
59	P16/AD14/A14	A14	O	C	—	—	Z	L	EPROM address out A14
60	P17/AD15/A15	A15	O	C	—	—	Z	L	EPROM address out A15
61	_WDTOUT	←	O	C	—	—	Z	H	Watch dog output
62	Vss	←	—	—	—	—	—	—	GND
63	Vcc	←	—	—	—	—	—	—	+5V
64	P20/A0/A16	A16	O	C	—	—	Z	L	EPROM address out A16
65	P21/A1/A17	DIR CLK	O	C	—	—	Z	L	DIR control terminal (LC89055Q) control clock output
66	P22/A2/A18	DIR CE	O	C	—	—	Z	L	DIR control terminal (LC89055Q) control chip enable output
67	P23/A3/A19	DIR MOSI	O	C	—	—	Z	L	DIR control terminal (LC89055Q) control data output
68	P24/A4/A20	DIR MISO	I	—	—	Lv	—	—	DIR control terminal (LC89055Q) control data input
69	P25/A5/A21	SW-SUM	O	C	—	—	L	L	Subwoofer output summation cont. output
70	P26/A6/A22	DAC-RESET	O	C	—	—	L	H	DAC control terminal (L: Power down mode, ↑(rising edge) Reset)
71	P27/A7/A23	SEL CK	O	C	—	—	Z	L	ADC/DIR data clock switching control terminal (L: ADC)
72	P30/_RD	_RD	O	C	—	—	Z	L	Flash memory control terminal
73	P31/_WR	_WR	O	C	—	—	Z	L	Flash memory control terminal
74	P32/_HWR	CSI	I	—	—	Lv	—	—	DIR control input terminal (L: PCM)
75	P33/_WAIT	ERR MUTE_	O	C	—	—	L	L	Pop noise preventive mute control output (L: Mute)
76	P34/_BUSRQ		O	C	—	—	Z	L	
77	P35/_BUSRQ	DIG. (AC3) MUTE	O	C	—	—	Z	L	Digital mute control output (L: AC-3 or DTS decode enable)
78	P36/_R/W		O	C	—	—	Z	L	
79	P37/_RAS	DIR RESET	O	C	—	—	Z	L	DIR control output (LC89055Q) (L: Reset)
80	P40/_CS0/_CAS0		O	C	—	—	Z	L	
81	P41/_CS1/_CAS1		O	C	—	—	Z	L	
82	P42/_CS2/_CAS2	_CS0	O	C	—	—	Z	L	Flash memory control terminal
83	P60/PG00	DSP C. RESET	O	C	—	—	Z	L	DSP reset output terminal (L: Reset)
84	P61/PG01	SCDOUT	I	—	—	Lv	—	—	DSP status data input terminal
85	P62/PG02	DSP_C. CS	O	C	—	—	Z	L	DSP chip select cont. output (L: Data out)
86	P63/PG03	DSP_C. CLK	O	C	—	—	Z	L	DSP data clock output terminal
87	P64/PG10	SCDIN	O	C	—	—	Z	L	DSP data output terminal
88	P65/PG11		O	C	—	—	Z	L	
89	P66/PG12		O	C	—	—	Z	L	
90	P67/PG13		O	C	—	—	Z	L	
91	Vss	←	—	—	—	—	—	—	GND
92	P50/AN0		I	—	Eu	Lv	Z	—	
93	P51/AN1		I	—	Eu	Lv	Z	—	
94	P52/AN2	EMP	I	—	—	Lv	—	—	H: EMP on
95	P53/AN3	96K DET</td							

**CS492604-CLR**  
**(AU: IC814)**

**CS492604-CLR Terminal Function**

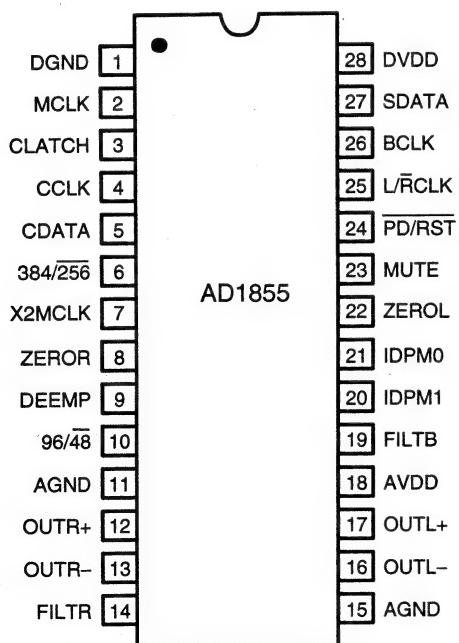
Pin No.	Pin Name	Function
1	VD1	Digital positive supply
2	DGND1	Digital supply ground
3	XMT958	SPDIF transmitter output
4	WR, DS, EMWR, GPIO10	Host write strobe or host data strobe or external memory write enable or general purpose input & output number10
5	RD, R/W, EMOE, GPIO11	Host parallel output enable or host parallel R/W or external memory outout enable or general purpose input & output number11
6	A1, SCIN	Host address bit one or SPI serial control data input
7	A0, SCCLK	Host parallel address bit zero or serial control port clock
8	DATA7, EMAD7, GPIO7	
9	DATA6, EMAD6, GPIO6	
10	DATA5, EMAD5, GPIO5	
11	DATA4, EMAD4, GPIO4	
12	VD2	Digital positive supply
13	DGND2	Digital supply ground
14	DATA3, EMAD3, GPIO3	
15	DATA2, EMAD2, GPIO2	
16	DATA1, EMAD1, GPIO1	
17	DATA0, EMAD0, GPIO0	
18	CS	Host parallel chip select, host serial SPI chip select
19	SCDIO, SCOUT, PSEL, GPIO9	Serial control port data input and output, parallel port type select
20	INTREQ, ABOOT	Control port interrupt request, automatic boot enable
21	EXTMEM, GPIO8	External memory chip select or general purpose input & output number 8
22	SDATAN1	PCM audio data input number one
23	VD3	Digital positive supply
24	DGND3	Digital supply ground
25	SCLKN1, STCCLK2	PCM audio input bit clock
26	LRCLKN1	PCM audio input sample rate clock
27	CMPDAT, SDATAN2	PCM audio data input number two
28	CMPCLK, SCLKN2	PCM audio input bit clock
29	CMPREQ, LRCLKN2	PCM audio input sample rate clock
30	CLKIN	Master clock input
31	CLKSEL	DSP clock select
32	FILT2	Phase locked loop filter
33	FILT1	Phase-locked loop filter
34	VA	Analog positive supply
35	AGND	Analog supply ground
36	RESET	Master reset input
37	DD	Reserved
38	DC	Reserved
39	AUDATA2	Digital audio output 2
40	AUDATA1	Digital audio output 1
41	AUDATA0	Digital audio output 0
42	LRCLK	Audio output sample rate clock
43	SCLK	Audio output bit clock
44	MCLK	Audio master clock

## LC75721E (EX: IC101)

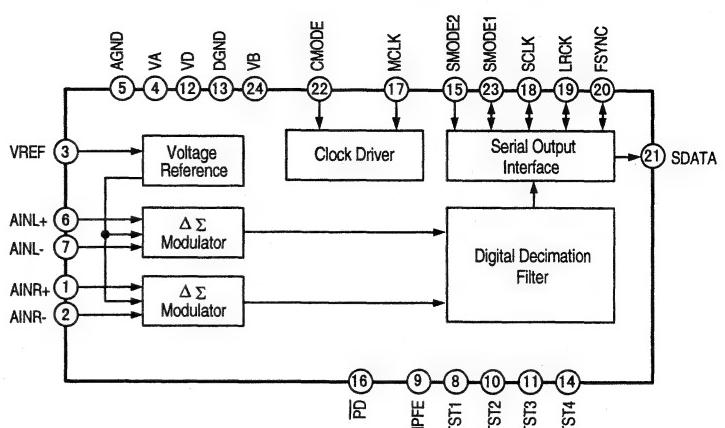
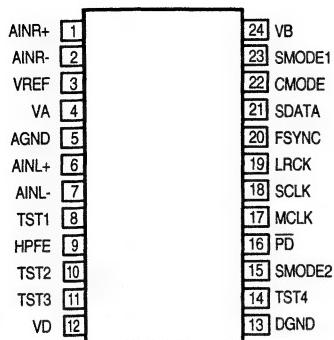


Symbol	Function
V <sub>DD</sub>	Power terminal +5V
V <sub>SS</sub>	Power terminal GND
V <sub>fL</sub>	Power terminal FL drive
DI	Serial data transfer terminal
CL	DI: Data
CE	CL: Clock
CE	CE: Chip enable
OSCI	External CR connecting terminal
OSCO	
RES	System reset terminal
AM1~AM35	Anode output terminal
AA1~AA3	
AA4/G16	
AA5/G15	
AA6/G14	
AA7/G13	
AA8/G12	Anode/Grid output terminal
G1~G11	Grid output terminal
TEST	LSI test terminal

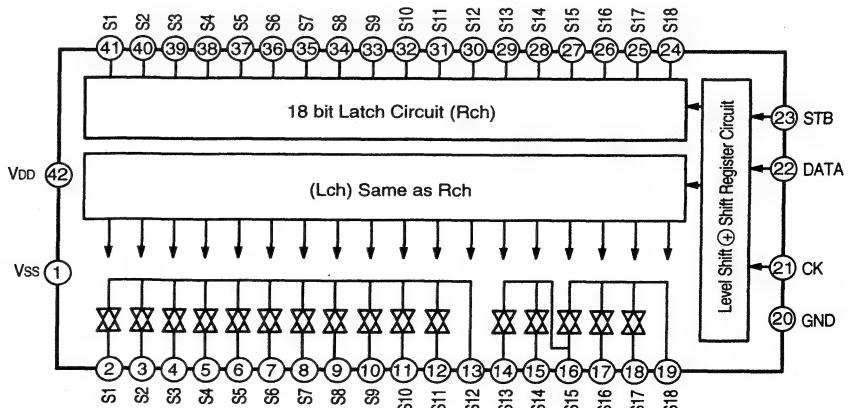
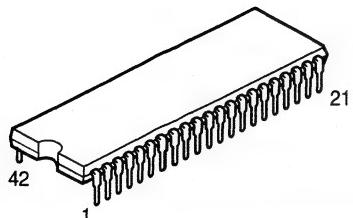
## AD1855 (AU: IC701, 702, 703)



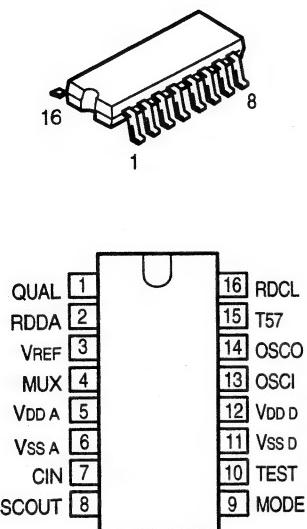
Pin No.	Name	I/O	Description
1	DGND	I	Digital Ground.
2	MCLK	I	Master Clock Input.
3	CLATCH	I	Latch input for control data.
4	CCLK	I	Control clock input for control data.
5	CDATA	I	Serial control input.
6	384/256	I	Selects the master clock mode.
7	X2MCLK	I	Selects internal clock doubler (LO) or internal clock=MCLK (HI)
8	ZEROR	O	Right Channel Zero Flag Output.
9	DEEMP	I	De-Emphasis.
10	96/48	I	Selects 48 kHz (LO) or 96 kHz Sample Frequency Control.
11,15	AGND	I	Analog Ground.
12	OUTR+	O	Right Channel Positive line level analog output.
13	OUTR-	O	Right Channel Negative line level analog output.
14	FILTR	O	Voltage Reference Filter Capacitor Connection.
16	OUTL-	O	Left Channel Negative line level analog output.
17	OUTL+	O	Left Channel Positive line level analog output.
18	AVDD	I	Analog Power supply.
19	FILTB	O	Filter Capacitor connection.
20	IDPM1	I	Input serial data port mode control one.
21	IDPM0	I	Input serial data port mode control zero.
22	ZEROL	O	Left Channel Zero Flag output.
23	MUTE	I	Mute. Assert HI to mute both stereo analog outputs.
24	PD/RST	I	Power-Down/Reset.
25	L/RCLK	I	Left/Right clock input for input data.
26	BCLK	I	Bit clock input for input data.
27	SDATA	I	Serial input.
28	DVDD	I	Digital Power Supply.

**AK5351 (AU: IC813)****AK5351 Terminal Function**

Pin No.	Symbol	I/O	Function
1	AINR+	I	Rch analog non-inverted input pin.
2	AINR-	I	Rch analog inverted input pin
3	VREF	O	Vref. output pin (VA-2.6V)
4	VA	—	Analog part power supply pin (+5V)
5	AGND	—	Analog ground pin
6	AINL+	I	Lch analog non-inverted input pin
7	AINL-	I	Lch analog inverted input pin
8	TST1		Test pin
9	HPFE	I	Hi-pass filter enable pin, "H": ON, "L": OFF
10	TST2		Test pin
11	TST3		Test pin
12	VD	—	Digital part power supply pin (+5V)
13	DGND	—	Digital ground pin
14	TST4		Test pin
15	SMODE2	I	Interface clock select pin
16	PD	I	Power down pin, "L": power down mode
17	MCLK	I	Master clock input pin, CMODE="H": 384fs, "L": 256fs
18	SCLK	I/O	Serial data clock pin
19	LRCK	I/O	Input channel select pin
20	FSYNC	I/O	Frame sync clock pin
21	SDATA	O	Serial data output pin
22	CMODE	I	Master clock select pin, "H": MCLK=384fs, "L": 256fs
23	SMODE1	I	Interface clock select pin
24	VB	—	Bulk power supply pin (+5V)

**TC9274N-011 (AU: IC107)**

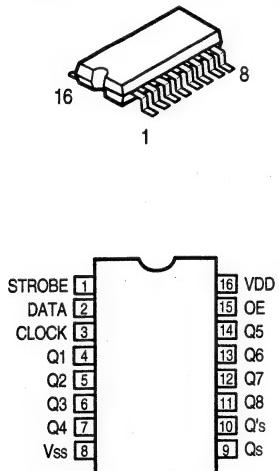
**Europe model only**  
**SAA6579T (CO: IC301)**



**SAA6579T Terminal Function**

Pin No.	Symbol	Function
1	QUAL	Quality indication output.
2	RDDA	RDS data output.
3	VREF	Reference voltage output (0.5 V <sub>DDA</sub> ).
4	MUX	Multiplex signal input.
5	V <sub>DDA</sub>	+5V power supply for analog part.
6	V <sub>SSA</sub>	Ground for analog part (0V).
7	CIN	Subcarrier input to comparator.
8	SCOUT	Subcarrier output of reconstruction filter.
9	MODE	Oscillation mode/test control input.
10	TEST	Test enable input.
11	V <sub>SSD</sub>	Ground for digital part (0V).
12	V <sub>DDD</sub>	+5V power supply for digital part.
13	OSCI	Oscillator input.
14	OSCO	Oscillator output.
15	T57	57kHz clock signal output.
16	RDCL	RDS clock output.

**TC4094BF (CO: IC304, EX: IC103)**



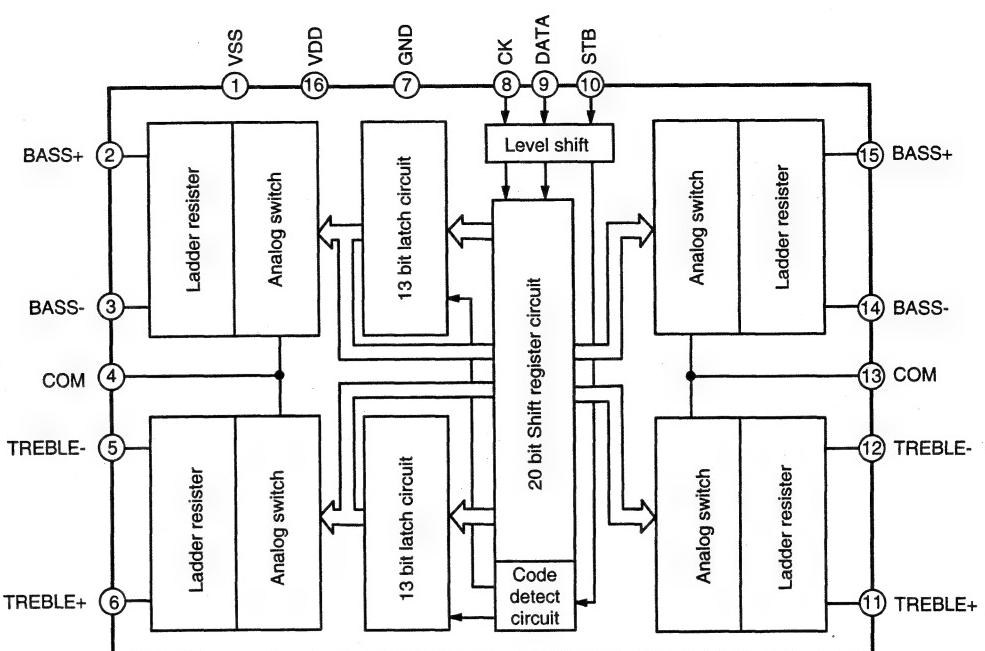
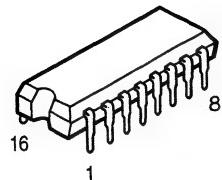
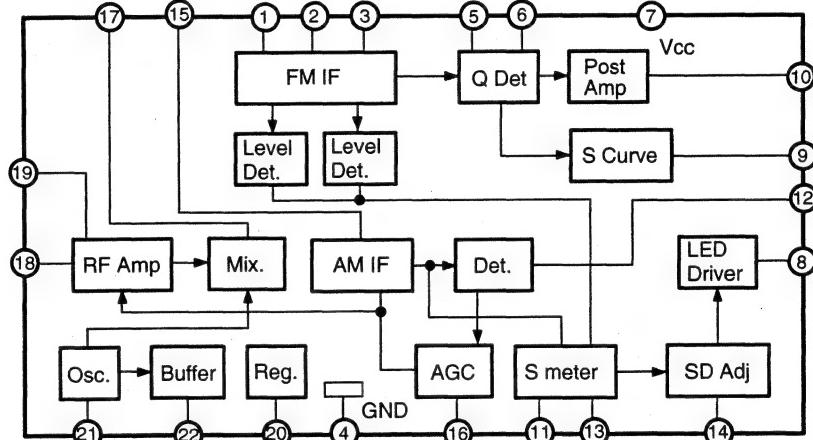
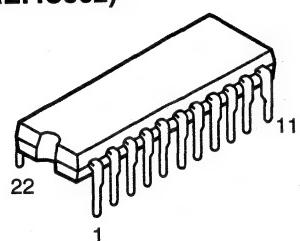
**CO: IC304**

Port	Symbol	Function
Q1	A	Video input switching
Q2	B	Video input switching
Q3	C	Video input switching
Q4	D	Video output switching
Q5	E	Video output switching
Q6	F	Video output switching (DVD/TV)
Q7	G	Video output switching (DVD/TV)
Q8	Not Used	

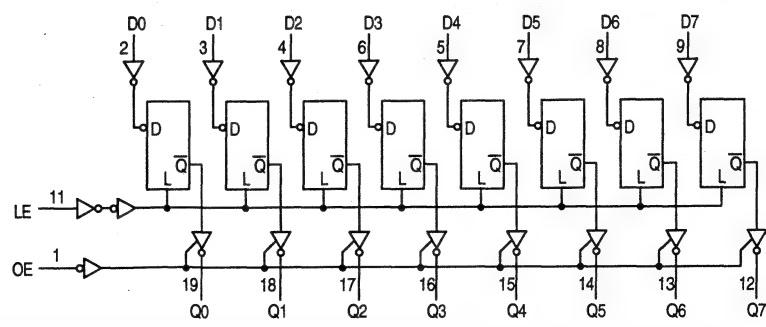
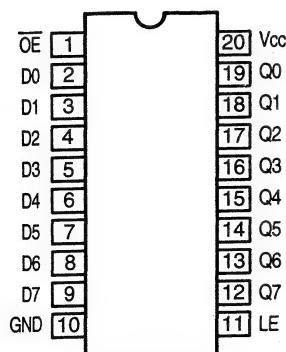
**EX: IC103**

Port	Symbol	Function
Q1	LOCK LED	"LOCK" LED drive output (H: Lock)
Q2	DOLBY DIGITAL LED	"DOLBY DIGITAL" LED drive output (H: D.Digital)
Q3	dts LED	"dts" LED drive output (H: dts)
Q4	AUTO LED	"AUTO" LED drive output (H: input mode "AUTO")
Q5	DTS LED	"DTS" LED drive output (H: input mode "DTS")
Q6	PCM LED	"PCM" LED drive output (H: input mode "PCM")
Q7	FRONT SP-A LED	"FRONT SPEAKER A" LED drive output
Q8	FRONT SP-B LED	"FRONT SPEAKER B" LED drive output

TC9184AP (CO: IC102)

LA1265 (S)  
(RE: IC502)

SN74LV573ANS (AU: IC302)



**SN74AHC157PW**

(AU: IC804)

**TC74VHC123AFT**

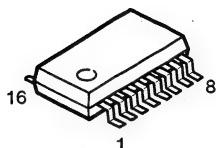
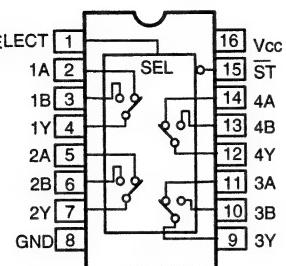
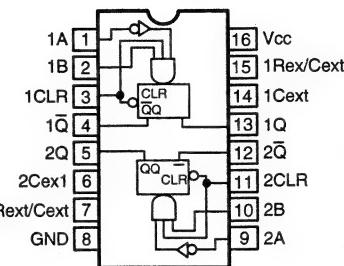
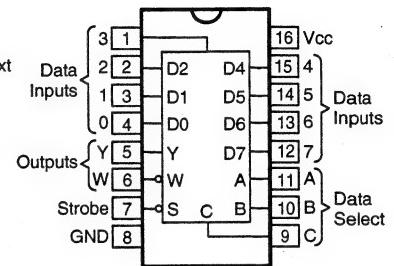
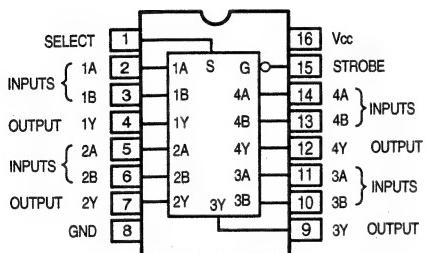
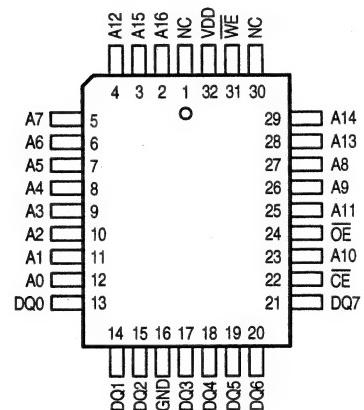
(AU: IC801, 806)

**TC74HC151AF**

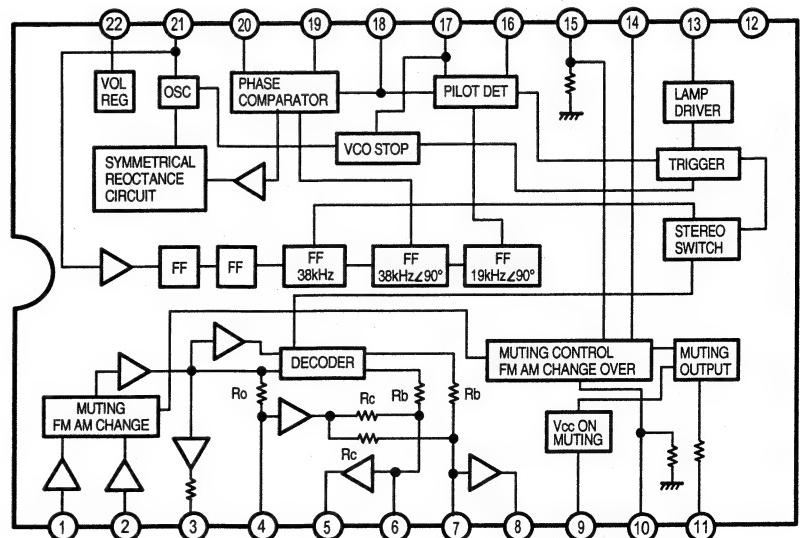
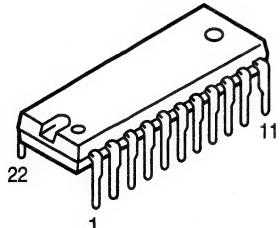
(CO: IC705)

**TC74HCT157AF**

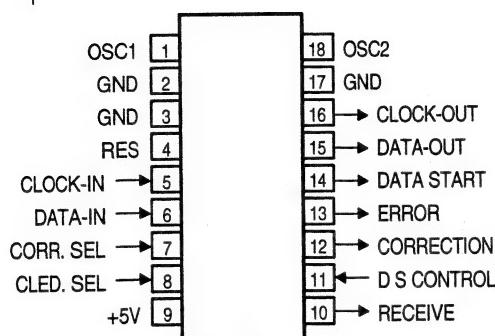
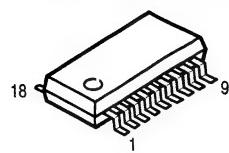
(AU: IC805)

**SN74AHC157PW****TC74VHC123AFT****TC74HC151AF****TC74HCT157AF****W29EE011P-90 (AU: IC303)  
W29C020P-90 (AU: IC817)****Terminal Function**

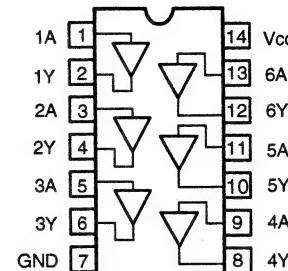
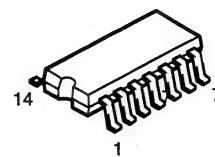
Name	Function
A0 - A16	Address input
DQ0 - DQ7	Data in/output
CE	Chip enable
OE	Output enable
WE	Write enable
V <sub>DD</sub>	Power terminal
GND	GND
NC	No connection

**LA3401  
(RE: IC503)**

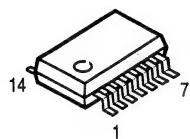
**LC7074M (CO: IC302)**  
(Europe model only)



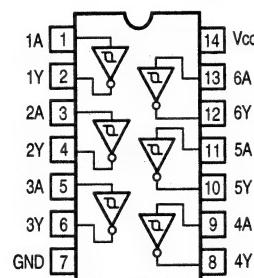
**TC74HCT7007AF**  
(AU: IC821)



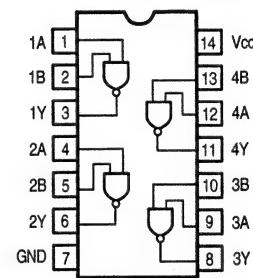
**SN74LV14APW (AU: IC809)**  
**SN74LV00APW (AU: IC807, 808)**  
**TC74HCU04AF (CO: IC704)**



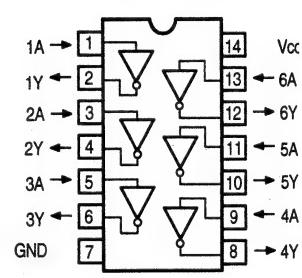
**SN74LV14APW**



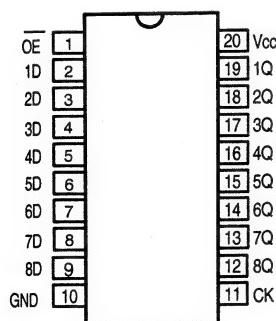
**SN74LV00APW**



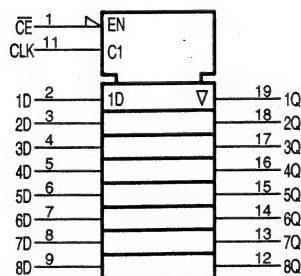
**TC74HCU04AF**



**SN74AHC574APW**  
(AU: IC815, 816)



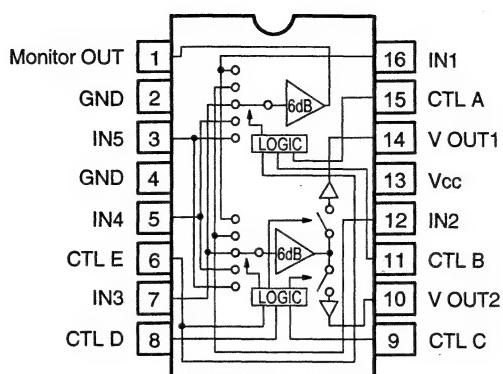
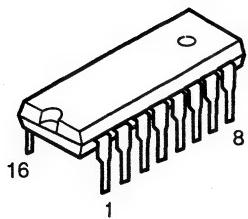
**Logic symbol**



**Function Table**  
(each flip-flop)

<b>INPUTS</b>	<b>OUTPUT</b>			
	<b>OE</b>	<b>CLK</b>	<b>D</b>	<b>Q</b>
L	↑	H		H
L	↑	L		L
L	H or L	X		Q0
H	X	X		Z

**BA7625**  
(PO: IC402, 450)



A	B	E	MONITOR OUT
L	L	*	IN 1
H	L	*	IN 2
L	H	*	IN 3
H	H	L	IN 4
H	H	H	IN 5

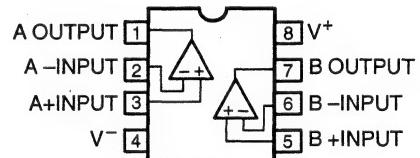
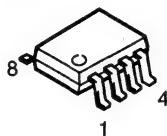
C	D	E	V OUT 1
L	L	*	—
H	L	*	IN 2
L	H	*	IN 3
H	H	L	IN 4
H	H	H	IN 5

C	D	E	V OUT 2
L	L	*	IN 1
H	L	*	—
L	H	*	IN 3
H	H	L	IN 4
H	H	H	IN 5

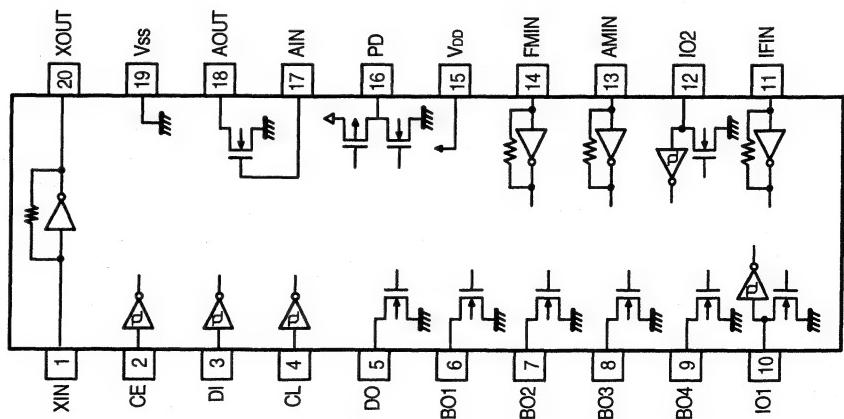
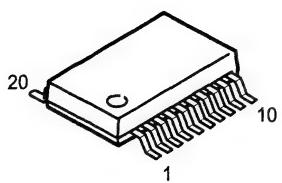
Note 1: \* mark means that feasible for either H or L.

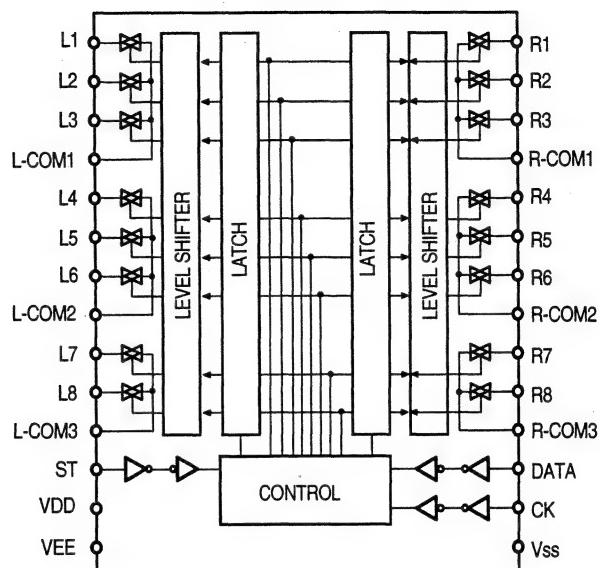
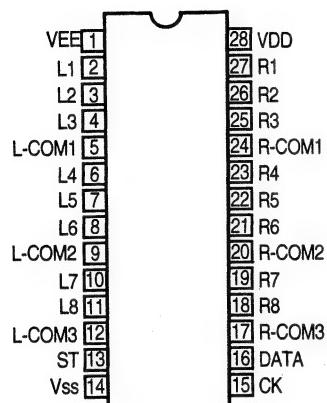
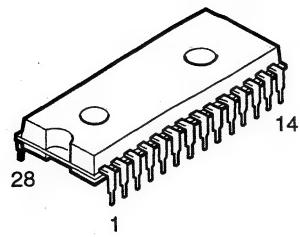
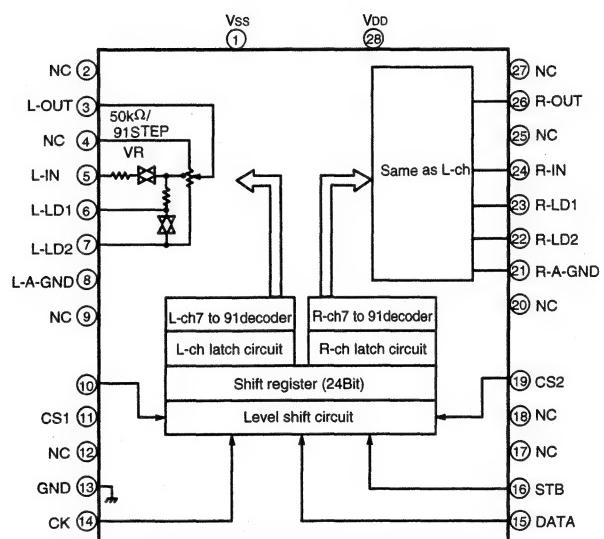
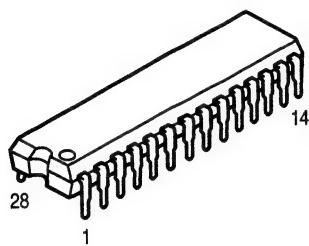
Note 2: Each input terminal is provided with sink chip clamp (BA7625).  
Each input terminal takes 20kohm at the end (BA7626).

**BA4510F (AU: IC811, 812)  
NJM2068MD (EX: IC301~304, 308~310, 701, 801~803)  
(CO: IC103, 104)  
(AU: IC106, 109, 731~733, )**

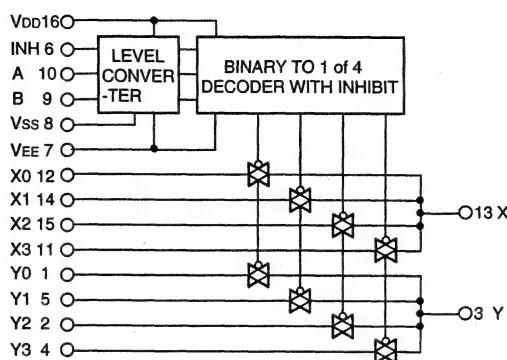
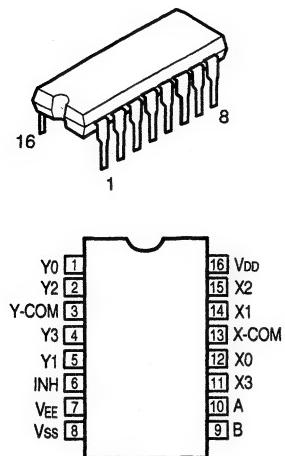


**LC72131M (RE: IC507)**



**NJU7313AL (EX: IC311)****TC9459N (EX: IC805~807)**

**BU4052BC (PO: IC401)**

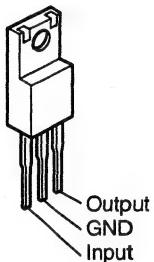


**TRUTH TABLE**

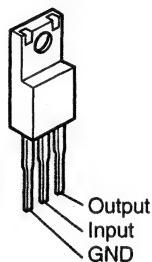
INHIBIT	A	B	ON SWITCH
L	L	L	X0 Y0
L	H	L	X1 Y1
L	L	H	X2 Y2
L	H	H	X3 Y3
H	X	X	NONE

X: don't Care

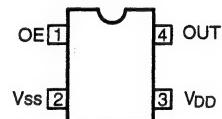
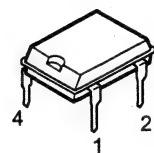
**NJM7805FA (S) (RE: IC902, 903)  
NJM7806FA (S)  
(PO: IC502)  
(RE: IC904)  
NJM7812FA (S) (RE: IC906)  
BA033T (AU: 819)**



**NJM7912FA (RE: IC907)**

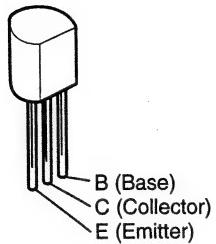


**SG-8002DCPT (12.287MHz)  
(AU: XL802)**

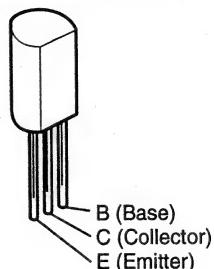


## ● TRANSISTORS

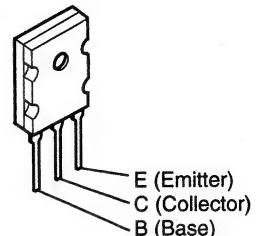
**2SA970 (BL)**  
**2PA1015GR**  
**2SA988 (E/F)**  
**2SC1841 (E/F)**  
**2SC2878 (A/B)**  
**2PC1815 (BL)**



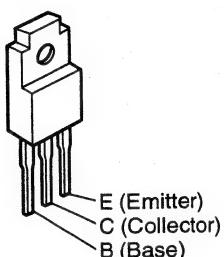
**2SC2705 (O) / (Y)**



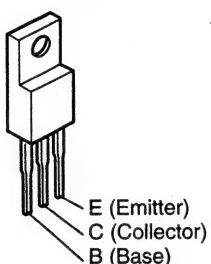
**2SA1491**  
**2SC3855**



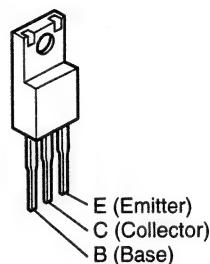
**2SB1186A**  
**2SD1763A**



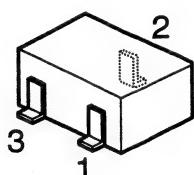
**2SA1670 (O/P/Y)**



**2SC4495**

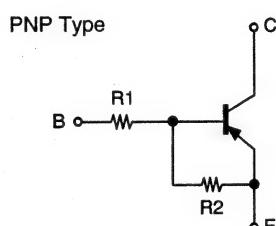


**DTA114TK**  
**DTA114EK**  
**DTA144EK**  
**DTC114EK**  
**DTC144EK**  
**DTC323TK**  
**RN2402**



1: GND/Emitter  
 2: Out/Collector  
 3: In/Base

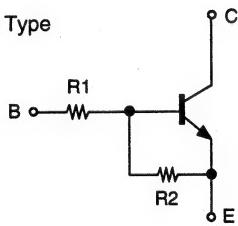
**DTA114TK**  
**DTA114EK**  
**DTA144EK**  
**RN2402**



	R1	R2
DTA114TK	10kohm	—
DTA114EK	10kohm	10kohm
DTA144EK	47kohm	47kohm
RN2402	10kohm	10kohm

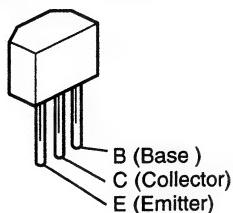
**DTC114EK**  
**DTC144EK**  
**DTC323TK**

NPN Type

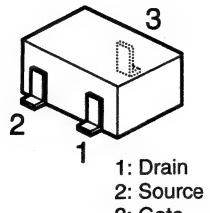


	R1	R2
DTC114EK	10kohm	10kohm
DTC144EK	47kohm	47kohm
DTC323TK	2.2kohm	—

**2SA933S (S)**  
**2SC3311A**  
**2SC1645S (B)**

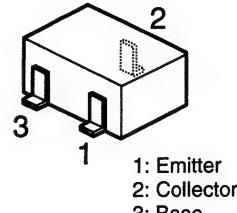


**2SK209 (GR)**



1: Drain  
 2: Source  
 3: Gate

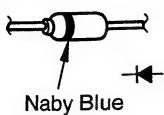
**2SA1182 Y/O**  
**2SC2996 (Y)**  
**2SC3326 (A/B)**  
**2SD601A**



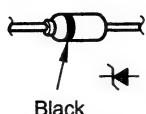
1: Emitter  
 2: Collector  
 3: Base

### ● DIODES (included LED)

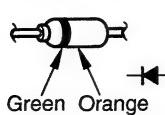
1SS270A



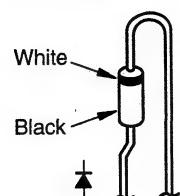
MTZJ3.3A MTZJ7.5A  
MTZJ5.6A MTZJ9.1A  
MTZJ6.2A MTZJ36A



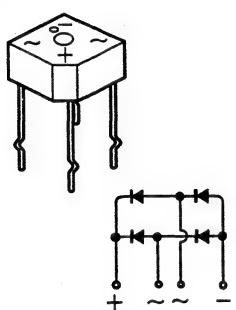
1SR35-400A



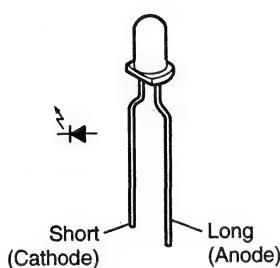
DSM1D2(Type 3)



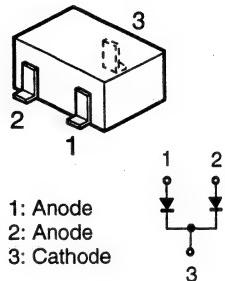
S4VB20



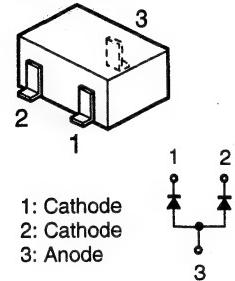
SEL1210S (Red)  
SEL4214S



DAN202K

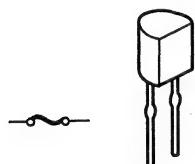


DAP202K



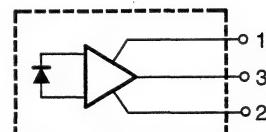
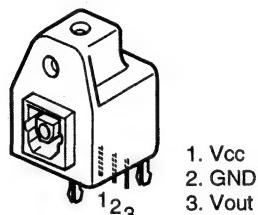
### ● IC PROTECTOR

ICP-N15 (PO: IC501)



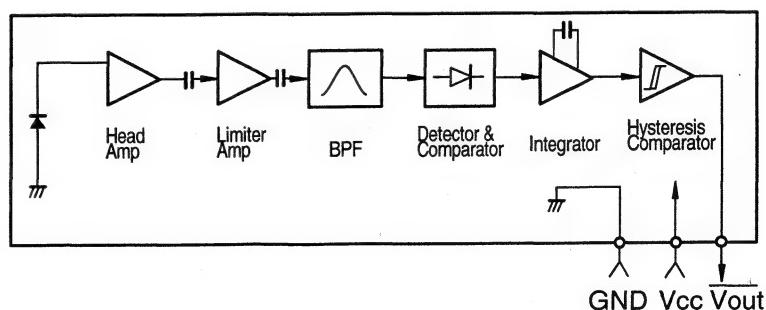
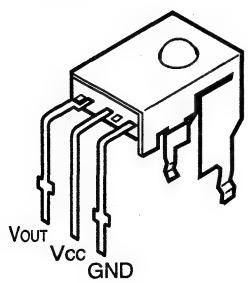
### ● OPTICAL

INPUT  
GP1F37R1 (CO: IC702, 703)

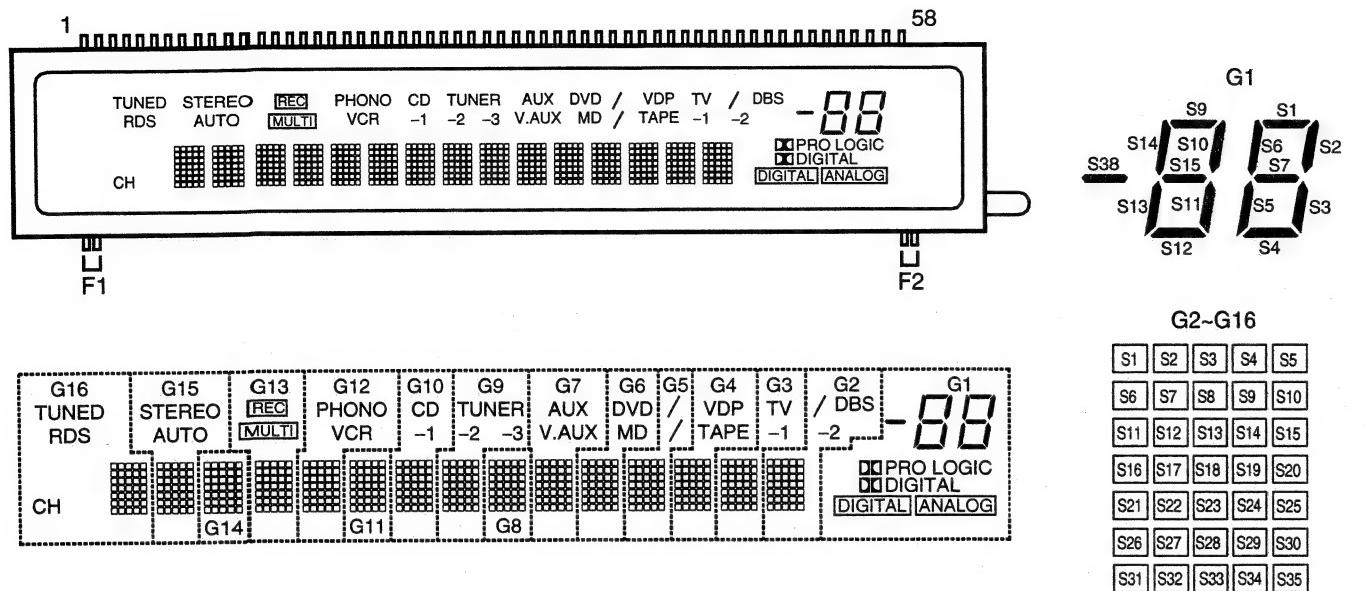


### ● OTHERS

GP1U271X (Remote Control Sensor)  
(EX: IC102)



● FL DISPLAY CM1690C (VI : FL101)



**Pin Assignment**

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CONNECTION	F1	F1	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18
PIN NO.	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CONNECTION	S19	S20	S21	S22	S23	S24	S25	S26	S27	S28	S29	S30	S31	S32	S33	S34	S35	S36	S37	S38

F1,F2 : Filament  
G1~G16 : Grid  
S1~S38 : Anode

**Anode & Grid Assignment**

	G1	G2~G16		G1	G2~G16		G1	G2~G16		G1	G2~G16
S1	S1	S1	S10	S10	S10	S19	—	S19	S28	—	S28
S2	S2	S2	S11	S11	S11	S20	—	S20	S29	—	S29
S3	S3	S3	S12	S12	S12	S21	—	S21	S30	—	S30
S4	S4	S4	S13	S13	S13	S22	—	S22	S31	—	S31
S5	S5	S5	S14	S14	S14	S23	—	S23	S32	—	S32
S6	S6	S6	S15	S15	S15	S24	—	S24	S33	—	S33
S7	S7	S7	S16	—	S16	S25	—	S25	S34	—	S34
S8	S8	S8	S17	DIGITAL	S17	S26	—	S26	S35	—	S35
S9	S9	S9	S18	PRO LOGIC	S18	S27	—	S27	—	—	—

	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12	G13	G14	G15	G16
S36	DIGITAL	/	TV	VDP	/(DVD)	DVD	AUX	—	TUNER	CD	—	PHONO	REC	—	STEREO	TUNED
S37	ANALOG	-2	-1	TAPE	/(MD)	MD	V.AUX	—	-2	-1	—	VCR	MULTI	—	AUTO	RDS
S38	S38	DBS	—	—	—	—	—	—	-3	—	—	—	—	—	—	CH

## **PRINTED WIRING BOARDS**

**1U-3197 AUDIO / DSP P.W.B. UNIT Ass'y  
COMPONENT SIDE**

2

1

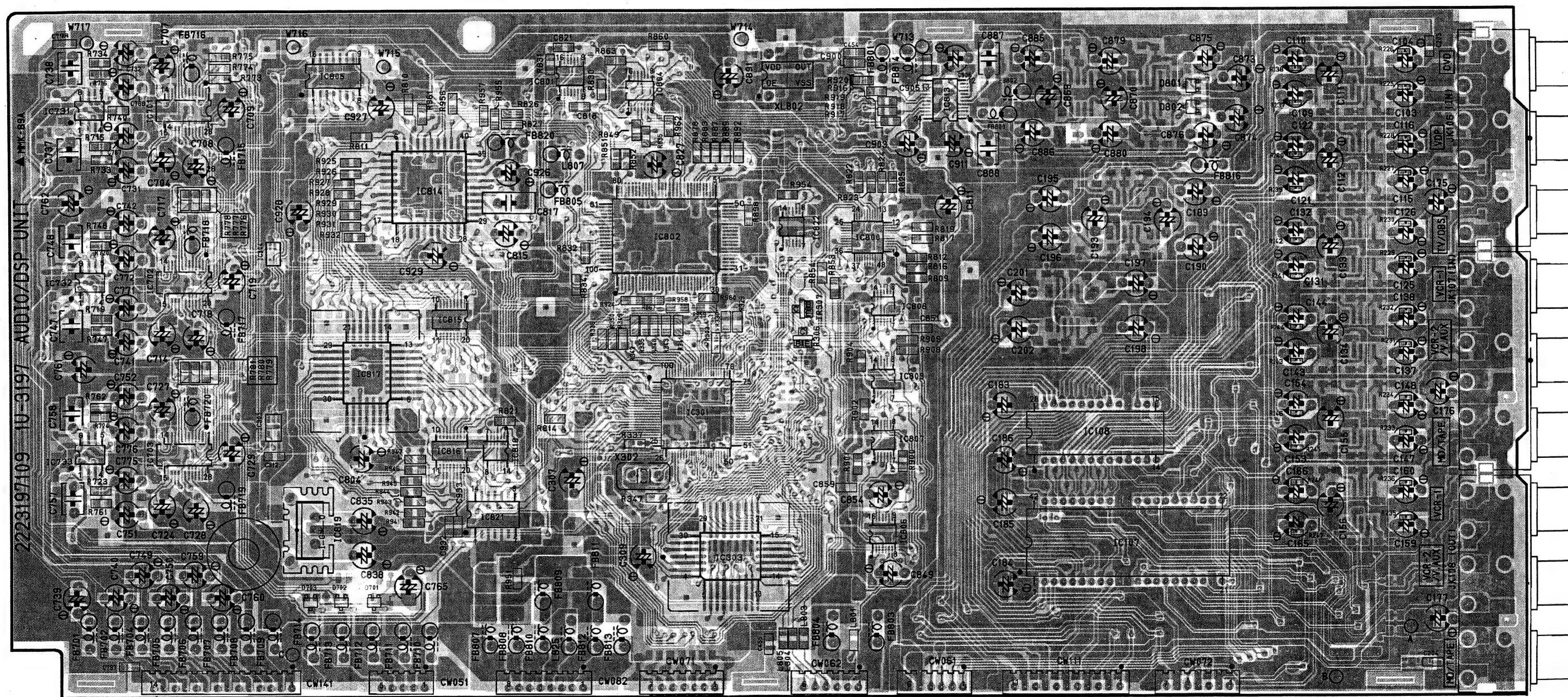
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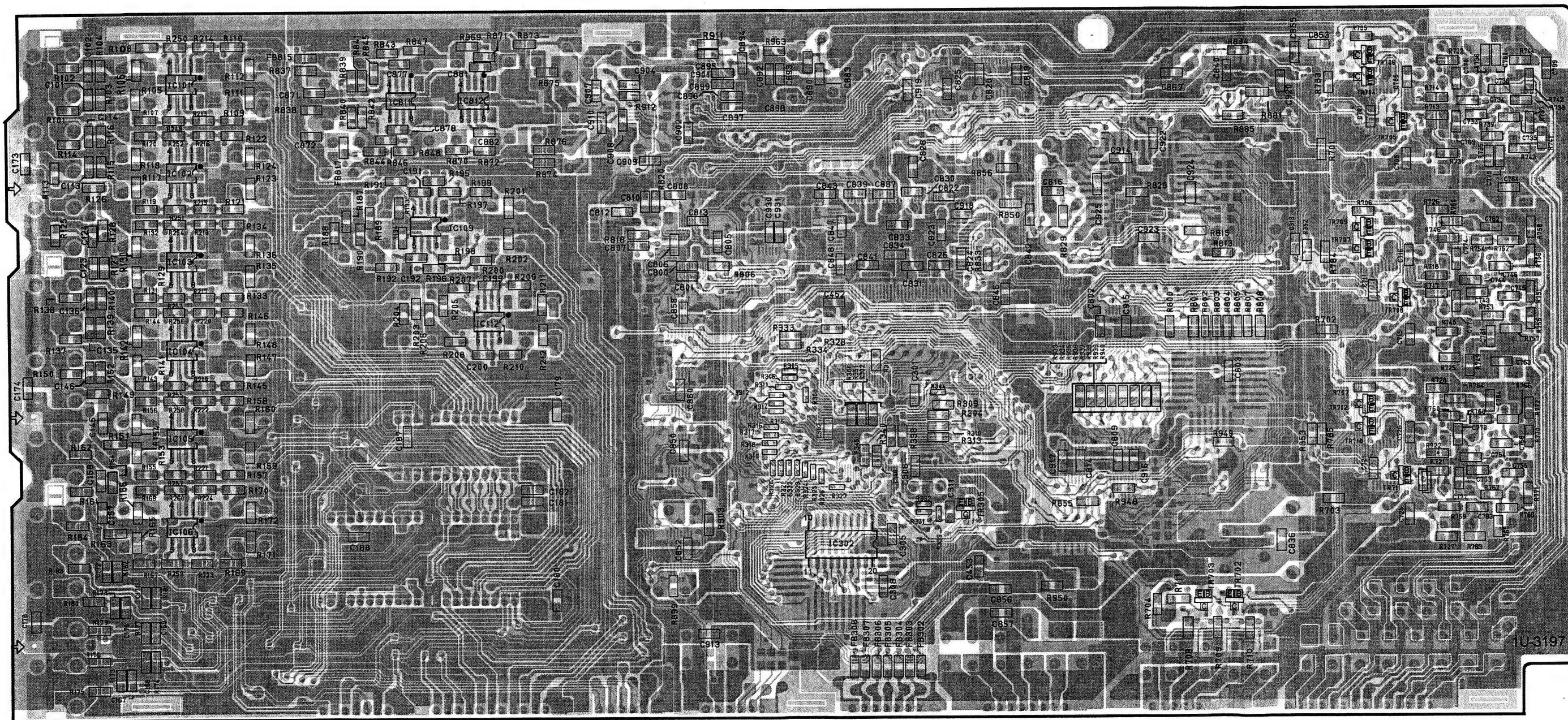
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8



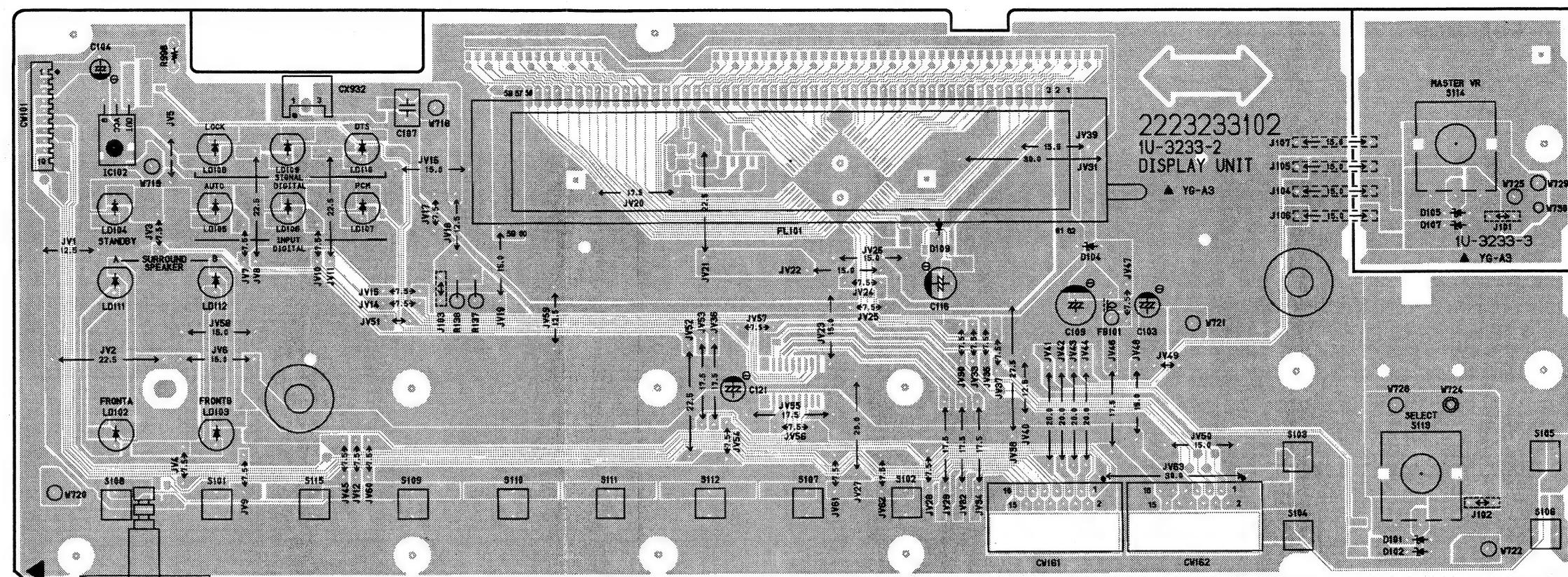
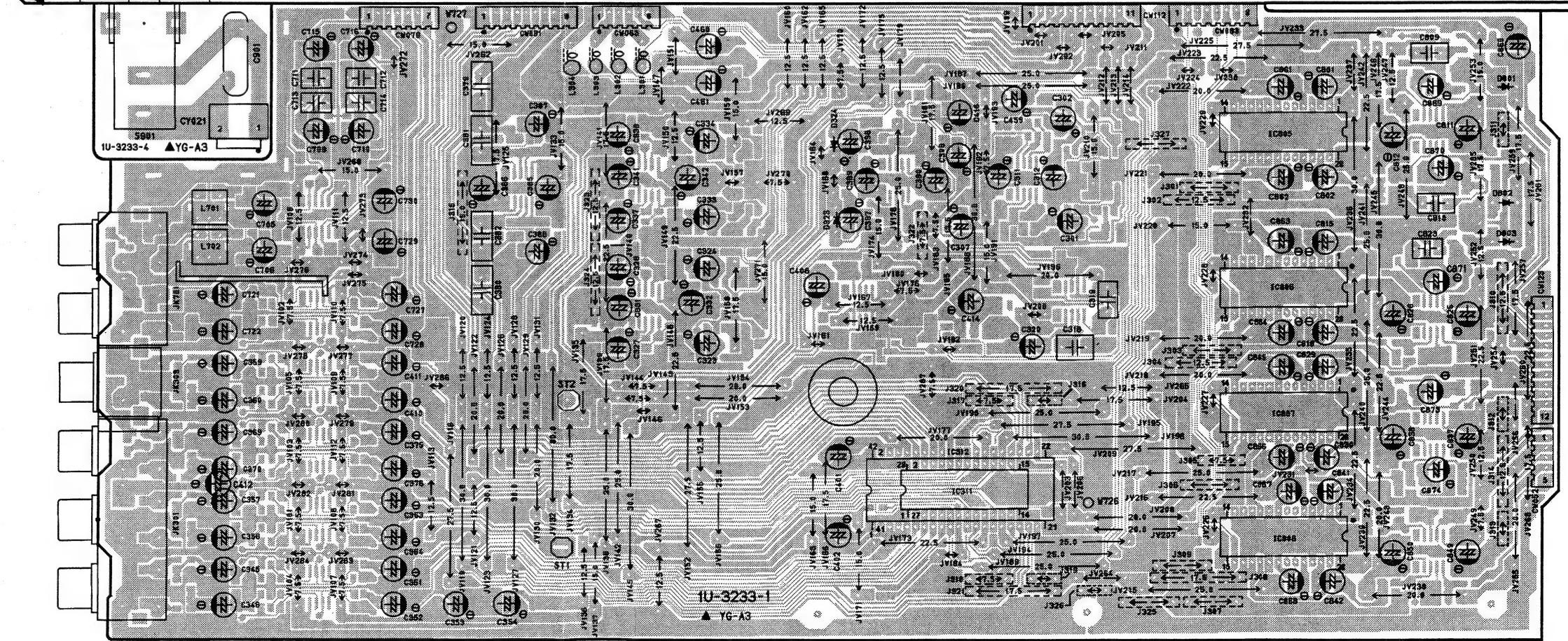
1 2 3 4 5 6 7 8

**FOIL SIDE**



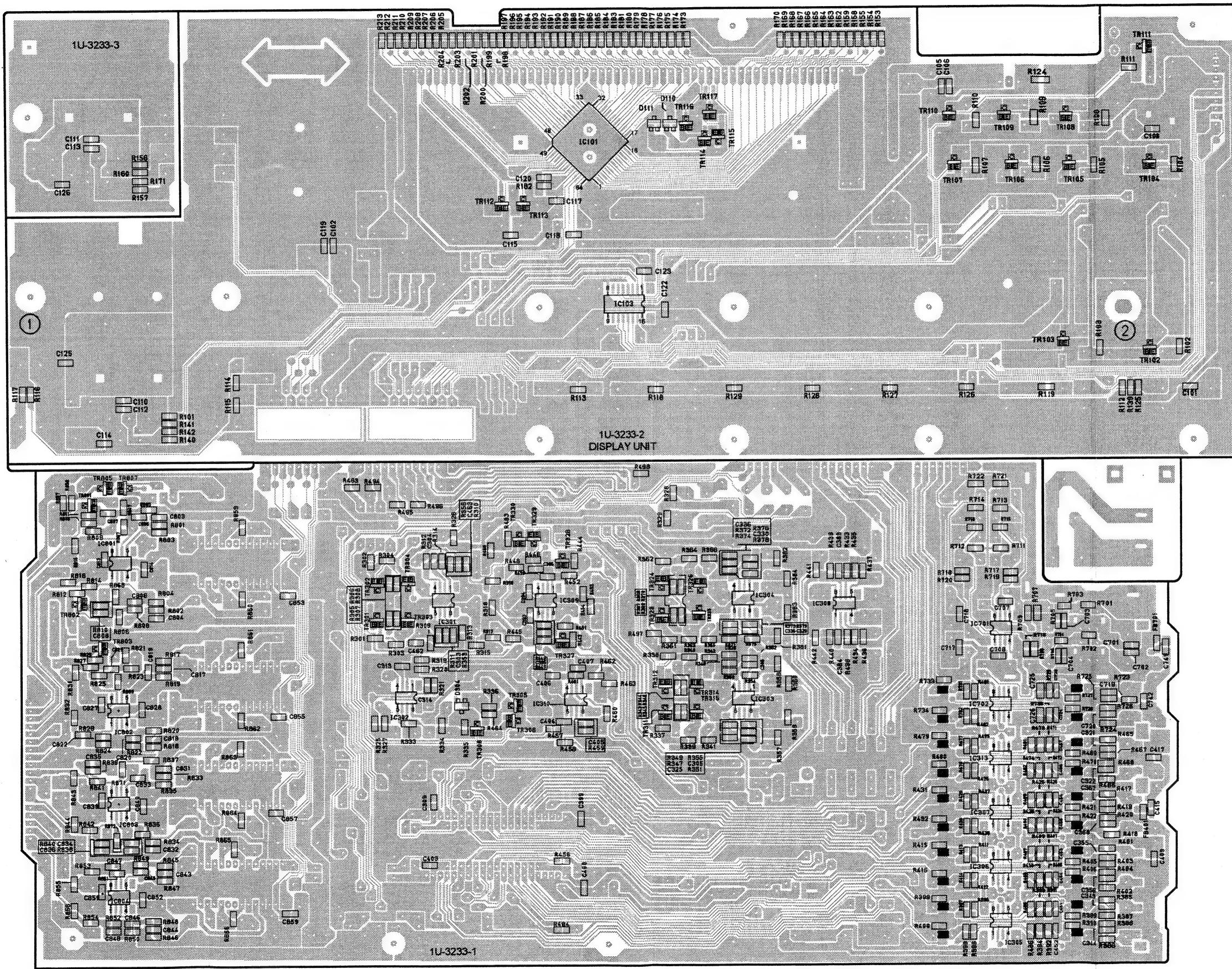
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**1U-3233 EXT. IN P.W.B. UNIT Ass'y  
COMPONENT SIDE**

**A****B****C****D****E**

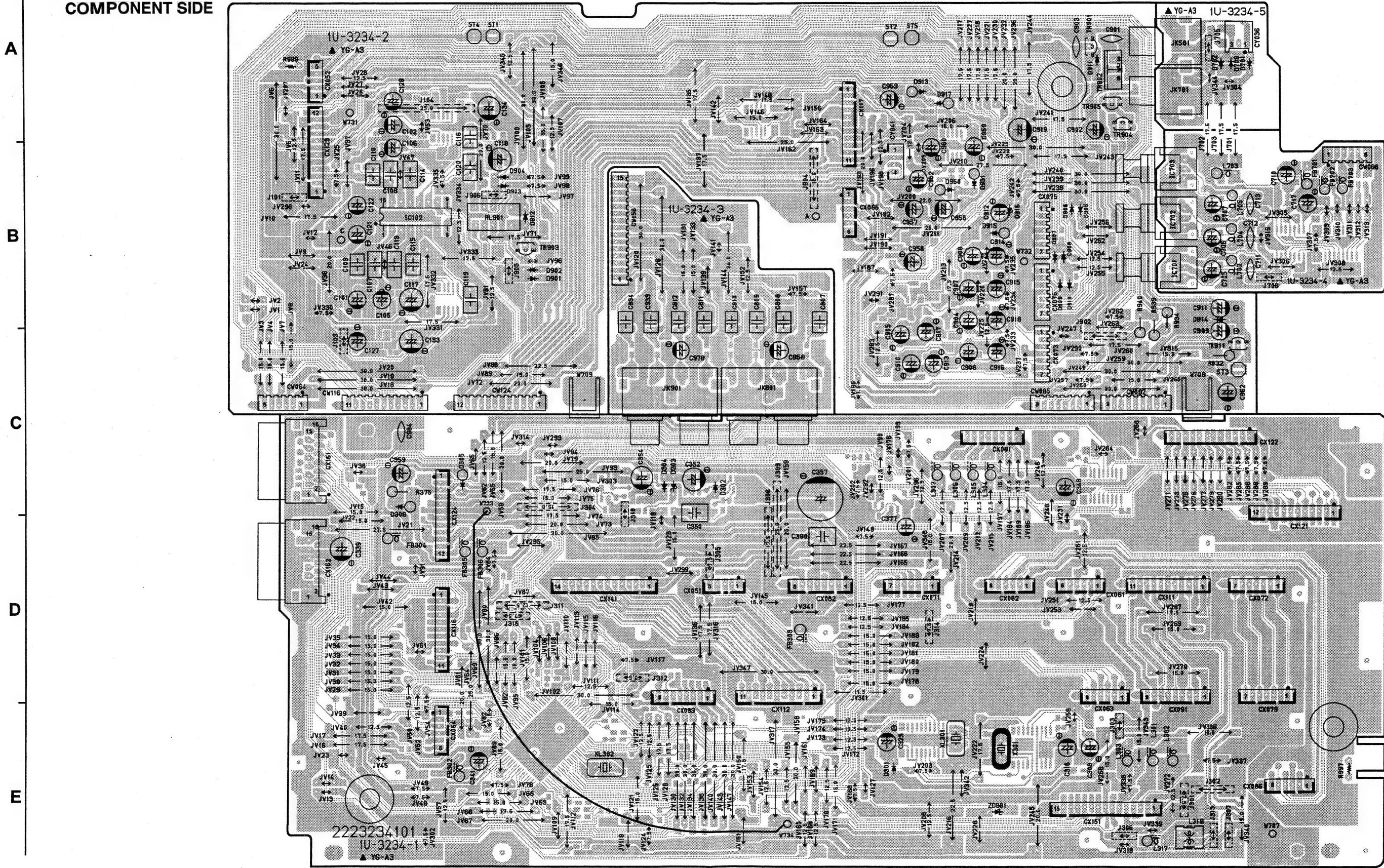
1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7 \_\_\_\_\_

**FOIL SIDE**



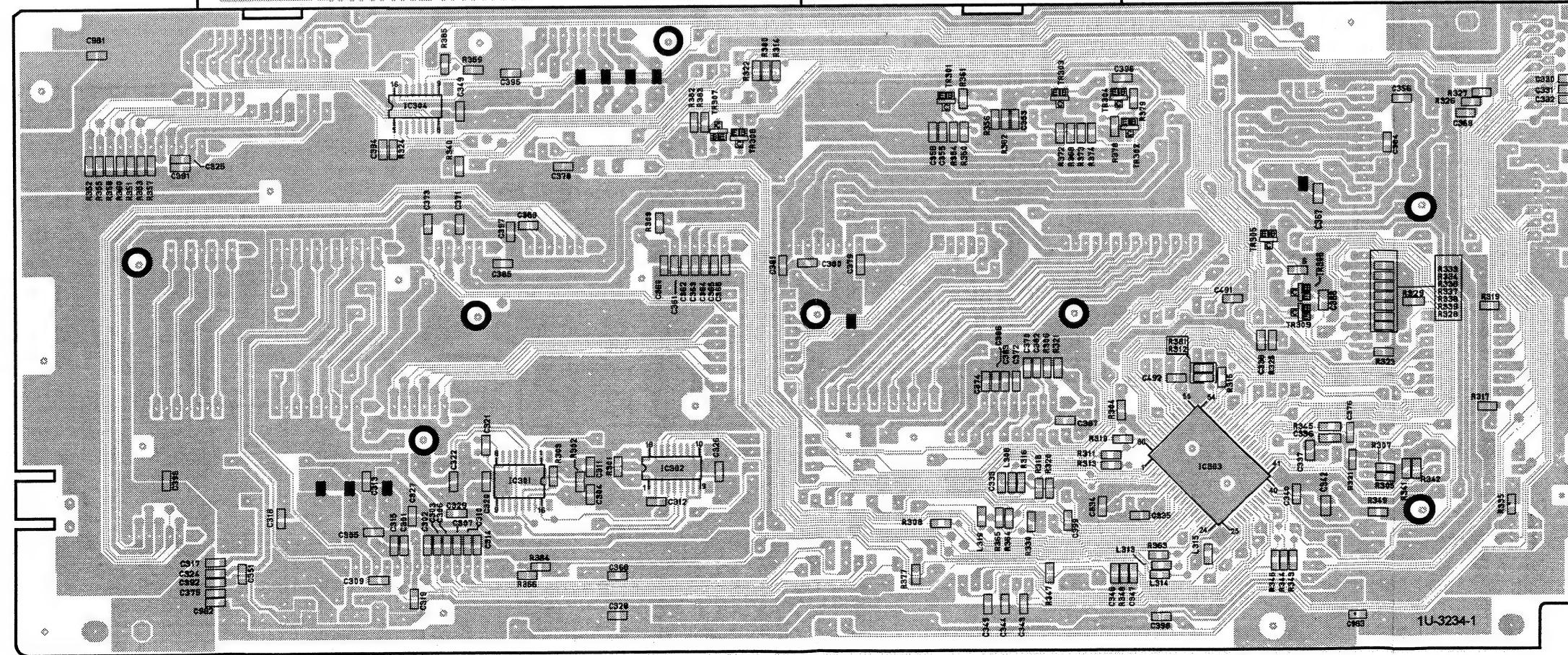
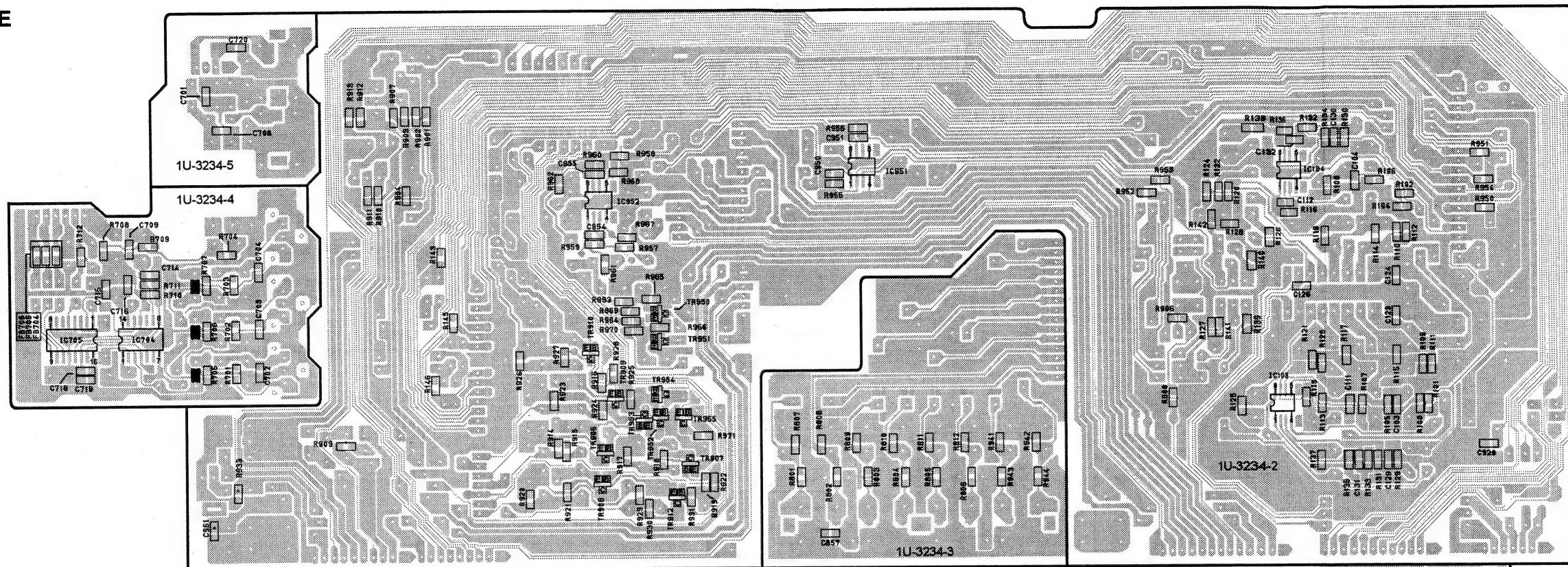
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**1U-3234 CONTROL P.W.B. UNIT Ass'y  
COMPONENT SIDE**



1 2 3 4 5 6 7

**FOIL SIDE**



A

B

C

D

E

**1U-3235 REGULATOR P.W.B. UNIT Ass'y  
1U-3236 VOLTAGE SELECT P.W.B. UNIT Ass'y (Asia model & Hong Kong model only)**

## **COMPONENT SIDE**

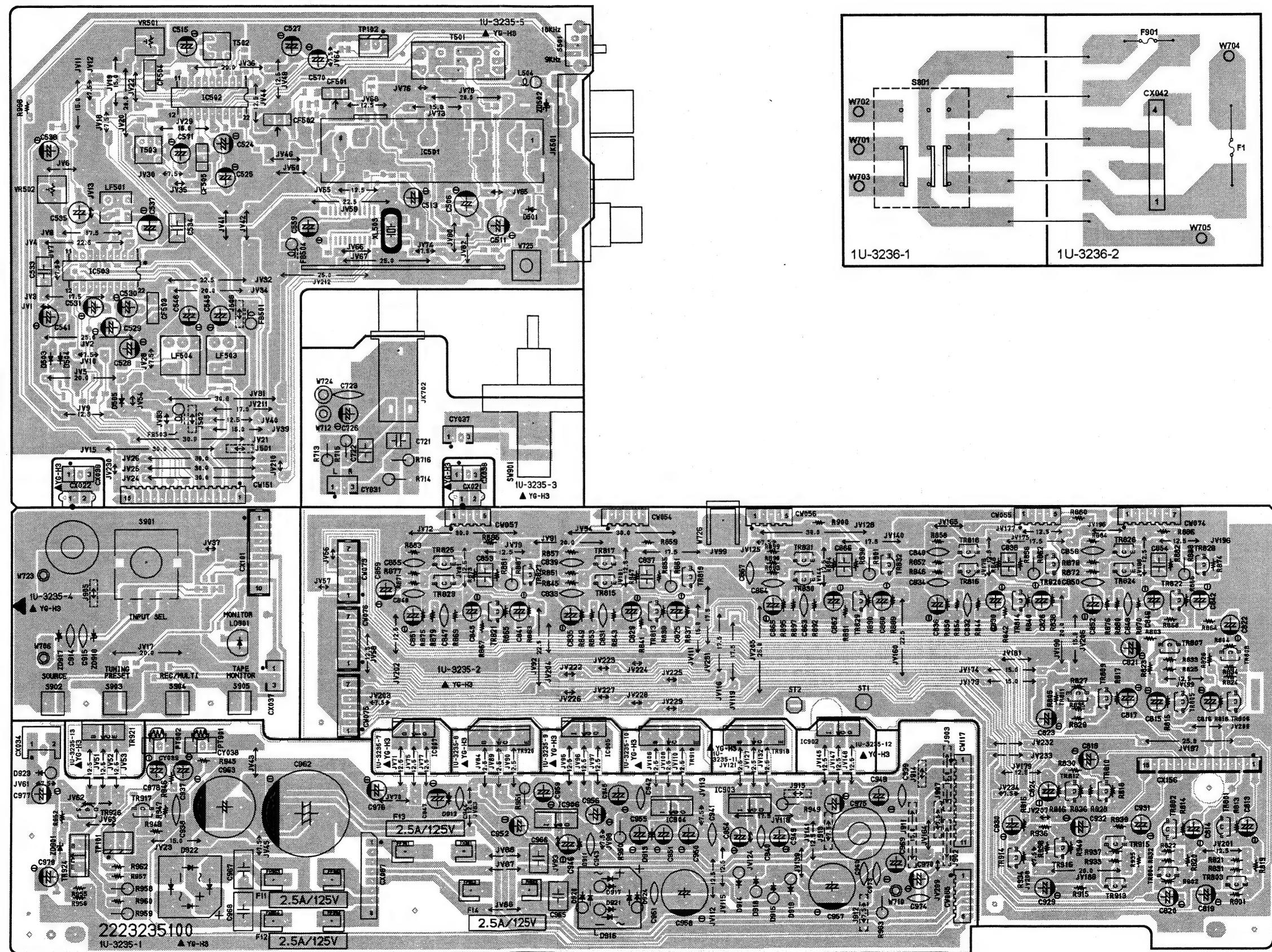
A

B

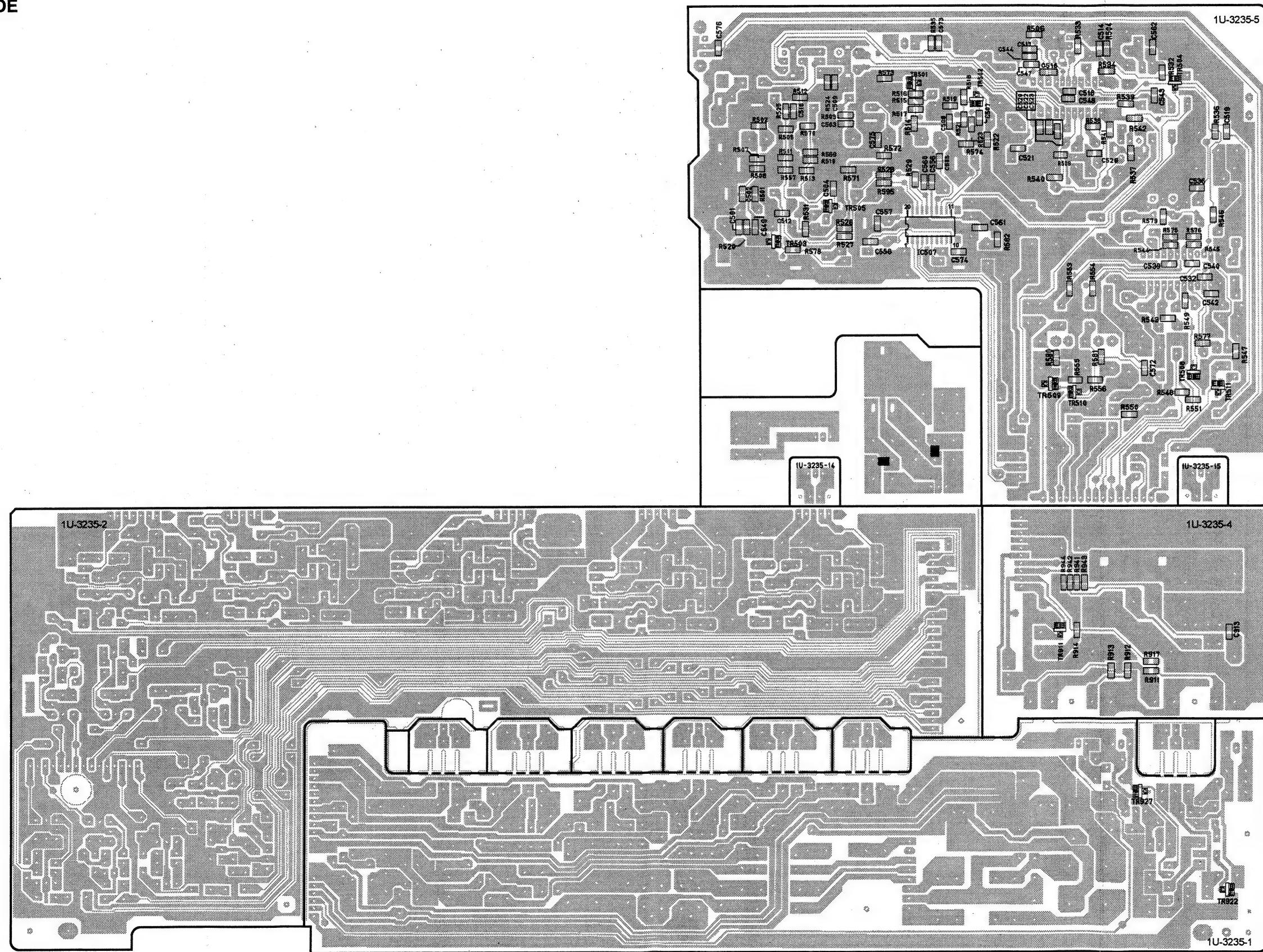
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□

8



1 2 3 4 5 6 7 8

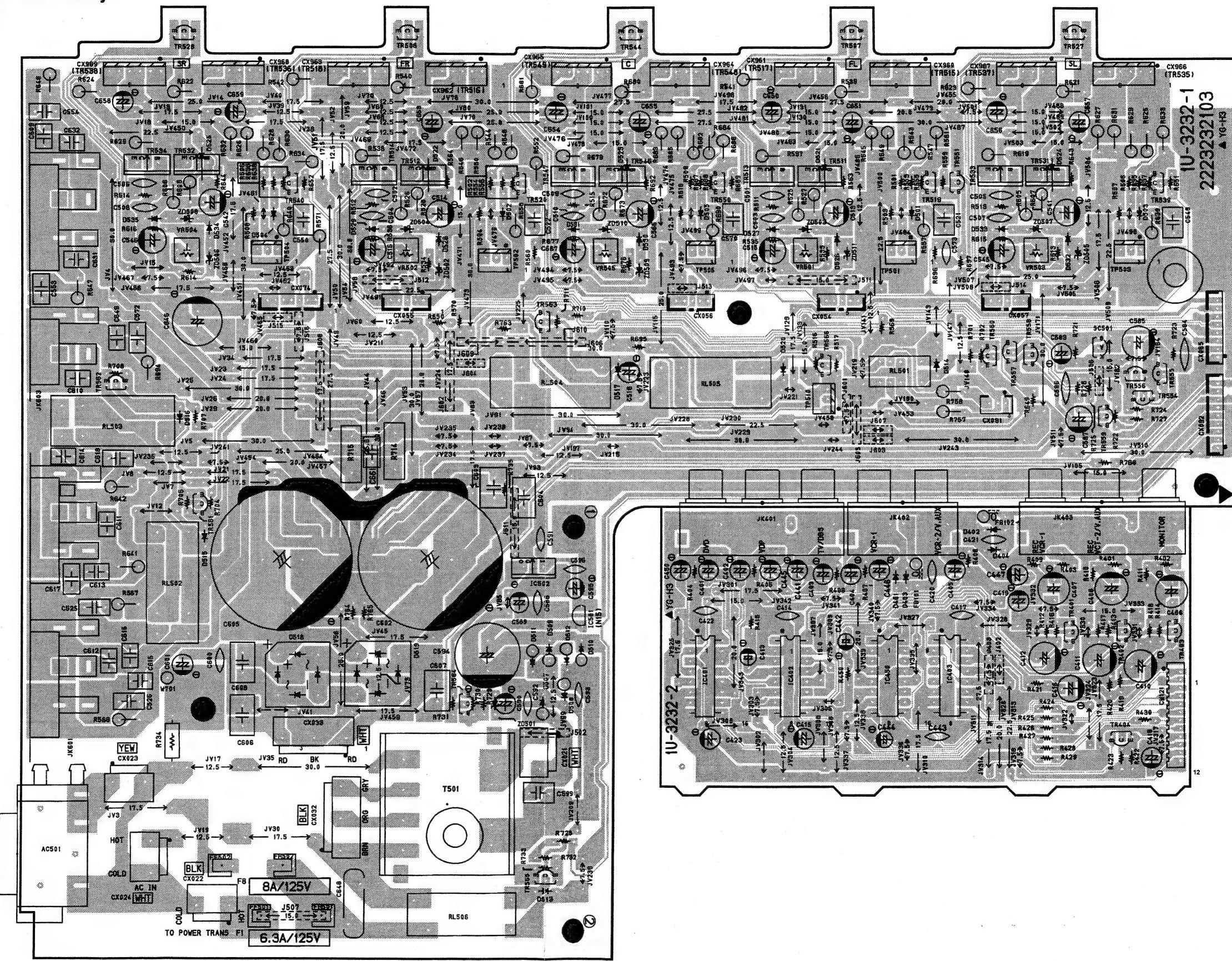
**FOIL SIDE**

1 2 3 4 5 6 7 8

## 1U-3232 POWER P.W.B. UNIT Ass'y

COMPONENT SIDE

A



## NOTE FOR PARTS LIST

- Part indicated with the mark "○" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.
- When ordering of part, clearly indicate "1" and "I" (i) to avoid mis-supplying.
- Ordering part without stating its part number can not be supplied.
- Part indicated with the mark "★" is not illustrated in the exploded view.
- Not including Carbon Film ±5%, 1/4W Type in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)

**WARNING:**

Parts marked with this symbol have critical characteristics.

Use ONLY replacement parts recommended by the manufacturer.

**● Resistors**

Ex.: RN 14K 2E 182 G FR  
 Type Shape Power Resist- Allowable Others  
 and per- andance error

RD : Carbon	2B : 1/8W	F : ±1%	P : Pulse-resistant type
RC : Composition	2E : 1/4W	G : ±2%	NL : Low noise type
RS : Metal oxide film	2H : 1/2W	J : ±5%	NB : Non-burning type
RW : Winding	3A : 1W	K : ±10%	FR : Fuse-resistor
RN : Metal film	3D : 2W	M : ±20%	F : Lead wire forming
RK : Metal mixture	3F : 3W		
	3H : 5W		

**\* Resistance**

1 8 2  $\Rightarrow$  1800 ohm = 1.8 kohm  
 Indicates number of zeros after effective number.  
 2-digit effective number.

• Units: ohm

1 R 2  $\Rightarrow$  1.2 ohm  
 1-digit effective number.  
 2-digit effective number, decimal point indicated by R.

• Units: ohm

**● Capacitors**

Ex.: CE 04W 1H 2R2 M BP  
 Type Shape Dielectric Capacity Allowable Others  
 and per- strength error

CE : Aluminum foil electrolytic	0J : 6.3V	F : ±1%	HS : High stability type
CA : Aluminum solid electrolytic	1A : 10V	G : ±2%	BP : Non-polar type
CS : Tantalum electrolytic	1C : 16V	J : ±5%	HR : Ripple-resistant type
CQ : Film	1E : 25V	K : ±10%	DL : For change and discharge
CK : Ceramic	1V : 35V	M : ±20%	HF : For assuring high frequency
CC : Ceramic	1H : 50V	Z : +80%	U : UL part
CP : Oil	2A : 100V	-20%	C : CSA part
CM : Mica	2B : 125V	P : +100%	W : UL-CSA type
CF : Metallized	2C : 160V	-0%	F : Lead wire forming
CH : Metallized	2D : 200V	C : ±0.25pF	
	2E : 250V	D : ±0.5pF	
	2H : 500V	E : Others	
	2J : 630V		

**\* Capacity (electrolyte only)**

2 2 2  $\Rightarrow$  2200μF  
 Indicates number of zeros after effective number.  
 2-digit effective number.

• Units: μF

2 R 2  $\Rightarrow$  2.2μF  
 1-digit effective number.  
 2-digit effective number, decimal point indicated by R.

• Units: μF

**\* Capacity (except electrolyte)**

2 2 2  $\Rightarrow$  2200pF=0.0022μF  
 (More than 2)—Indicates number of zeros after effective number.  
 2-digit effective number.

• Units: pF

2 2 1  $\Rightarrow$  220pF  
 (0 or 1)—Indicates number of zeros after effective number.  
 2-digit effective number.

• When the dielectric strength is indicated in AC, "AC" is included after the dielectric strength value.

## PARTS LIST OF P.W.B. UNIT

### 1U-3197 AUDIO/DSP UNIT ASS'Y

Note: The symbols in the column "Remarks" indicate the following destinations.  
 E3: U.S.A. & Canada model  
 EU: U.S.A. model (AVR-87)  
 E1C: China model  
 E1H: Hong Kong model  
 E2: Europe model  
 E3T: Taiwan R.O.C. model  
 E1: Asia model

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
<b>SEMICONDUCTORS GROUP</b>							
IC106	263 0896 909	IC NJM2068MD		R125,126	247 0005 905	Carbon chip 100ohm 1/10W	RM73B-101J for E3,EU,E1,E1C, E1H,E3T
IC107	262 2545 006	IC TC9274N-011		R125,126	247 0006 962	Carbon chip 470ohm 1/10W	RM73B-471J for E2
IC109	263 0896 909	IC NJM2068MD		R127,128	247 0015 966	Carbon chip 2.7Mohm 1/10W	RM73B-275J
IC301	262 2615 004	IC TMP93CS41F		R131~134	247 0018 905	Carbon chip 0ohm 1/10W	RM73B-0R0K
IC302	262 2682 901	IC SN74LV573ANS		R137,138	247 0005 905	Carbon chip 100ohm 1/10W	RM73B-101J for E3,EU,E1,E1C, E1H,E3T
IC303	262 2723 006	IC W29EE011P-90 (18)		R137,138	247 0006 962	Carbon chip 470ohm 1/10W	RM73B-471J for E2
IC701~703	262 2674 906	IC AD1855JRSRL		R139,140	247 0015 966	Carbon chip 2.7Mohm 1/10W	RM73B-275J
IC731~733	263 0896 909	IC NJM2068MD		R143~146	247 0018 905	Carbon chip 0ohm 1/10W	RM73B-0R0K
IC800	262 2675 015	IC LC89055W		R149,150	247 0005 905	Carbon chip 100ohm 1/10W	RM73B-101J for E3,EU,E1,E1C, E1H,E3T
IC801	262 2608 901	IC TC74VHC123AFT		R149,150	247 0006 962	Carbon chip 470ohm 1/10W	RM73B-471J for E2
IC804	262 2609 900	IC SN74AHC157PW		R151,152	247 0015 966	Carbon chip 2.7Mohm 1/10W	RM73B-275J
IC805	262 2284 901	IC TC74HCT157AF		R155~158	247 0018 905	Carbon chip 0ohm 1/10W	RM73B-0R0K
IC806	262 2608 901	IC TC74VHC123AFT		R161,162	247 0005 905	Carbon chip 100ohm 1/10W	RM73B-101J for E3,EU,E1,E1C, E1H,E3T
IC807,808	262 2519 906	IC SN74LV00APW		R161,162	247 0006 962	Carbon chip 470ohm 1/10W	RM73B-471J for E2
IC809	262 2557 900	IC SN74LV14APW		R163~166	247 0012 927	Carbon chip 100kohm 1/10W	RM73B-104J
IC811,812	263 0934 900	IC BA4510F		R167,168	247 0006 962	Carbon chip 470ohm 1/10W	RM73B-471J
IC813	262 2426 905	IC AK5351-VF		R169,170	247 0004 922	Carbon chip 47ohm 1/10W	RM73B-470J
IC814	262 2657 907	IC CS492604		R171,172	247 0012 927	Carbon chip 100kohm 1/10W	RM73B-104J
IC815,816	262 2660 907	IC SN74AHC574PW		R173,174	247 0015 966	Carbon chip 2.7Mohm 1/10W	RM73B-275J
IC817	262 2724 005	IC W29C020P-90 (18)		R175,176	247 0006 962	Carbon chip 470ohm 1/10W	RM73B-471J
IC819	263 1048 002	IC BA033T		R177,178	247 0015 966	Carbon chip 2.7Mohm 1/10W	RM73B-275J
IC821	262 2376 903	IC TC74HCT7007AF		R179,180	247 0006 962	Carbon chip 470ohm 1/10W	RM73B-471J
IC822	262 2557 900	IC SN74LV14APW		R181,182	247 0015 966	Carbon chip 2.7Mohm 1/10W	RM73B-275J
TR305	269 0082 902	Transistor DTC114EK		R183,184	247 0006 962	Carbon chip 470ohm 1/10W	RM73B-471J
TR702	269 0082 902	Transistor DTC114EK		R187~190	247 0012 927	Carbon chip 100kohm 1/10W	RM73B-104J
TR703~712	269 0083 901	Transistor DTA114EK		R191,192	247 0005 905	Carbon chip 100ohm 1/10W	RM73B-101J
D701~703	276 0560 901	Diode DAN202K		R195~200	247 0018 905	Carbon chip 0ohm 1/10W	RM73B-0R0K
<b>RESISTORS GROUP</b>							
R101,102	247 0005 905	Carbon chip 100ohm 1/10W	RM73B-101J for E3,EU,E1,E1C, E1H,E3T	R201,202	247 0012 927	Carbon chip 100kohm 1/10W	RM73B-104J
R101,102	247 0006 962	Carbon chip 470ohm 1/10W	RM73B-471J for E2	R213~224	247 0018 905	Carbon chip 0ohm 1/10W	RM73B-0R0K
R103,104	247 0015 966	Carbon chip 2.7Mohm 1/10W	RM73B-275J	R225~234	247 2018 903	Carbon chip 0ohm 1/16W	RM73B-0R0K
R107~110	247 0018 905	Carbon chip 0ohm 1/10W	RM73B-0R0K	R237~246	247 2018 903	Carbon chip 0ohm 1/16W	RM73B-0R0K
R113,114	247 0005 905	Carbon chip 100ohm 1/10W	RM73B-101J for E3,EU,E1,E1C, E1H,E3T	R249~258	247 0018 905	Carbon chip 0ohm 1/10W	RM73B-0R0K
R113,114	247 0006 962	Carbon chip 470ohm 1/10W	RM73B-471J for E2	R301,302	247 0009 985	Carbon chip 10kohm 1/10W	RM73B-103J
R115,116	247 0015 966	Carbon chip 2.7Mohm 1/10W	RM73B-275J	R303	247 2003 989	Carbon chip 33ohm 1/16W	RM73B-330J
R119~122	247 0018 905	Carbon chip 0ohm 1/10W	RM73B-0R0K	R304	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B-472J
				R305,306	247 2003 989	Carbon chip 33ohm 1/16W	RM73B-330J
				R307	247 0009 985	Carbon chip 10kohm 1/10W	RM73B-103J

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
R308	247 2003 989	Carbon chip 33ohm 1/16W	RM73B--330J	R816	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
R309	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J	R817	247 0009 969	Carbon chip 8.2kohm 1/10W	RM73B--822J
R311,312	247 2003 989	Carbon chip 33ohm 1/16W	RM73B--330J	R818	247 0008 957	Carbon chip 3kohm 1/10W	RM73B--302J
R313	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J	R819	247 0009 914	Carbon chip 5.1kohm 1/10W	RM73B--512J
R314-327	247 2003 989	Carbon chip 33ohm 1/16W	RM73B--330J	R820	247 0004 977	Carbon chip 75ohm 1/10W	RM73B--750J
R328	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J	R822-825	247 0004 922	Carbon chip 47ohm 1/10W	RM73B--470J
R332	247 2018 903	Carbon chip 0ohm 1/16W	RM73B--0R0K	R826,827	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B--472J
R334	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K	R828	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R337	247 2011 942	Carbon chip 47kohm 1/16W	RM73B--473J	R829	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
R338	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J	R830	247 0014 967	Carbon chip 1Mohm 1/10W	RM73B--105J
R340	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J	R831	247 0011 902	Carbon chip 33kohm 1/10W	RM73B--333J
R345,346	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K	R835	247 0005 989	Carbon chip 220ohm 1/10W	RM73B--221J
R351	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J	R837-840	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B--472J
R352,353	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K	R841,842	247 0011 944	Carbon chip 47kohm 1/10W	RM73B--473J
R701-703	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K	R843,844	247 0009 998	Carbon chip 11kohm 1/10W	RM73B--113J
R705-707	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J	R847,848	247 0008 986	Carbon chip 3.9kohm 1/10W	RM73B--392J
R708-710	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J	R849	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
R711	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K	R854,855	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
R713,714	247 0008 986	Carbon chip 3.9kohm 1/10W	RM73B--392J	R860	247 0004 922	Carbon chip 47ohm 1/10W	RM73B--470J
R715,716	247 0008 902	Carbon chip 1.8kohm 1/10W	RM73B--182J	R863	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
R717,718	247 0008 986	Carbon chip 3.9kohm 1/10W	RM73B--392J	R869-872	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B--472J
R719,720	247 0008 902	Carbon chip 1.8kohm 1/10W	RM73B--182J	R873-876	247 0006 920	Carbon chip 330ohm 1/10W	RM73B--331J
R721,722	247 0008 986	Carbon chip 3.9kohm 1/10W	RM73B--392J	R881	247 0004 922	Carbon chip 47ohm 1/10W	RM73B--470J
R723,724	247 0008 902	Carbon chip 1.8kohm 1/10W	RM73B--182J	R885	247 0004 922	Carbon chip 47ohm 1/10W	RM73B--470J
R725-728	247 0009 969	Carbon chip 8.2kohm 1/10W	RM73B--822J	R894	247 0004 922	Carbon chip 47ohm 1/10W	RM73B--470J
R731,732	247 0008 986	Carbon chip 3.9kohm 1/10W	RM73B--392J	R895,896	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
R733,734	247 0008 902	Carbon chip 1.8kohm 1/10W	RM73B--182J	R899	247 0012 927	Carbon chip 100kohm 1/10W	RM73B--104J
R735,736	247 0009 914	Carbon chip 5.1kohm 1/10W	RM73B--512J	R901,902	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
R739,740	247 0009 914	Carbon chip 5.1kohm 1/10W	RM73B--512J	R903	247 0012 927	Carbon chip 100kohm 1/10W	RM73B--104J
R741,742	247 0006 988	Carbon chip 560ohm 1/10W	RM73B--561J	R904	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
R743,744	247 0007 990	Carbon chip 1.6kohm 1/10W	RM73B--162J	R909	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
R745,746	247 0008 986	Carbon chip 3.9kohm 1/10W	RM73B--392J	R912	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
R747,748	247 0008 902	Carbon chip 1.8kohm 1/10W	RM73B--182J	R916-920	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
R749,750	247 0009 914	Carbon chip 5.1kohm 1/10W	RM73B--512J	R925-948	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
R753,754	247 0009 914	Carbon chip 5.1kohm 1/10W	RM73B--512J	R951	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
R755,756	247 0006 988	Carbon chip 560ohm 1/10W	RM73B--561J	R955-957	247 0004 922	Carbon chip 47ohm 1/10W	RM73B--470J
R757,758	247 0007 990	Carbon chip 1.6kohm 1/10W	RM73B--162J	R962,963	247 0004 922	Carbon chip 47ohm 1/10W	RM73B--470J
R759,760	247 0008 986	Carbon chip 3.9kohm 1/10W	RM73B--392J				
R761,762	247 0008 902	Carbon chip 1.8kohm 1/10W	RM73B--182J				
R763,764	247 0009 914	Carbon chip 5.1kohm 1/10W	RM73B--512J				
R767,768	247 0009 914	Carbon chip 5.1kohm 1/10W	RM73B--512J				
R769,770	247 0006 988	Carbon chip 560ohm 1/10W	RM73B--561J				
R771,772	247 0007 990	Carbon chip 1.6kohm 1/10W	RM73B--162J				
R773-781	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J				
R783-785	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K				
R800-808	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J				
R810,811	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J				
R813	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J				
R814	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B--472J				
R815	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J				

## CAPACITORS GROUP

C101,102	257 0005 986	Ceramic chip 330pF/50V	CC73SL1H331J for E2
C113,114	257 0005 986	Ceramic chip 330pF/50V	CC73SL1H331J for E2
C123,124	257 0005 986	Ceramic chip 330pF/50V	CC73SL1H331J for E2
C135,136	257 0005 986	Ceramic chip 330pF/50V	CC73SL1H331J for E2
C145,146	257 0005 986	Ceramic chip 330pF/50V	CC73SL1H331J for E2
C155,156	254 4524 943	Electrolytic 1μF/50V	CE04W1H010M(SMG/RE3)

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
C157,158	257 0005 986	Ceramic chip 330pF/50V	CC73SL1H331J for E2	C753~756	257 0005 928	Ceramic chip 180pF/50V	CC73SL1H181J
C159,160	254 4524 985	Electrolytic 10μF/50V	CE04W1H100M(SMG/RE3)	C757,758	255 1264 940	Mylar film 2200pF/50V	CQ93M1H222J(B)
C165,166	254 4524 985	Electrolytic 10μF/50V	CE04W1H100M(SMG/RE3)	C759~762	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)
C167~172	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J	C763,764	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z
C173,174	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z	C767,768	254 4538 926	Electrolytic 33μF/16V	CE04W1C330M(SMG/RE3)
C178	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z	C769,770	257 0006 943	Ceramic chip 560pF/50V	CC73SL1H561J
C180,181	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z	C771,772	254 4538 926	Electrolytic 33μF/16V	CE04W1C330M(SMG/RE3)
C184,185	254 4524 943	Electrolytic 1μF/50V	CE04W1H100M(SMG/RE3)	C773,774	257 0006 943	Ceramic chip 560pF/50V	CC73SL1H561J
C188	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K	C775,776	254 4538 926	Electrolytic 33μF/16V	CE04W1C330M(SMG/RE3)
C189,190	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)	C777~784	257 0006 943	Ceramic chip 560pF/50V	CC73SL1H561J
C193,194	254 4524 943	Electrolytic 1μF/50V	CE04W1H100M(SMG/RE3)	C800~803	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z
C195,196	254 4538 942	Electrolytic 100μF/16V	CE04W1C101M(SMG/RE3) for E2	C804	254 4524 943	Electrolytic 1μF/50V	CE04W1H101M(SMG/RE3)
C195,196	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3) for E3,EU,E1,E1C,E1H,E3T	C805,806	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z
C301,302	257 0011 983	Ceramic chip 0.047μF/25V	CK73B1E473K	C807	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z
C305	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z	C808	257 0011 996	Ceramic chip 0.1μF/25V	CK73B1E104K
C306	257 0011 983	Ceramic chip 0.047μF/25V	CK73B1E473K	C809	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z
C307	254 4524 943	Electrolytic 1μF/50V	CE04W1H101M(SMG/RE3)	C810	257 0011 909	Ceramic chip 0.01μF/25V	CK73B1E103K
C308	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z	C811	254 4524 943	Electrolytic 1μF/50V	CE04W1H101M(SMG/RE3)
C309	254 4524 943	Electrolytic 1μF/50V	CE04W1H101M(SMG/RE3)	C812,813	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z
C311~313	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z	C815	254 4524 956	Electrolytic 2.2μF/50V	CE04W1H2R2M(SMG/RE3)
C452,453	257 0010 984	Ceramic chip 0.047μF/50V	CK73B1H473K	C817	256 1059 912	Metallized 0.22μF/50V	CF93A1H224J(JL)
C701	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z	C818	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K
C704	254 4536 928	Electrolytic 100μF/10V	CE04W1A101M(SMG/RE3)	C819	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z
C705,706	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z	C820	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z
C707,708	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)	C821	257 0005 986	Ceramic chip 330pF/50V	CC73SL1H331J
C709	254 4536 931	Electrolytic 220μF/10V	CE04W1A221M(SMG/RE3)	C825	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z
C711	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z	C835	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)
C714	254 4536 928	Electrolytic 100μF/10V	CE04W1A101M(SMG/RE3)	C838	254 4524 943	Electrolytic 1μF/50V	CE04W1H101M(SMG/RE3)
C715,716	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z	C840	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z
C717	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)	C849	254 4524 930	Electrolytic 0.47μF/50V	CE04W1HR47M(SMG/RE3)
C718	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)	C850~852	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z
C719	254 4536 931	Electrolytic 220μF/10V	CE04W1A221M(SMG/RE3)	C854	254 4524 930	Electrolytic 0.47μF/50V	CE04W1HR47M(SMG/RE3)
C721	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z	C856~860	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z
C724	254 4536 928	Electrolytic 100μF/10V	CE04W1A101M(SMG/RE3)	C869,870	254 4524 943	Electrolytic 1μF/50V	CE04W1H101M(SMG/RE3)
C725,726	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z	C871,872	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z
C727,728	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)	C873~876	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)
C729	254 4536 931	Electrolytic 220μF/10V	CE04W1A221M(SMG/RE3)	C877,878	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J
C731,732	254 4538 926	Electrolytic 33μF/16V	CE04W1C330M(SMG/RE3)	C879,880	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)
C733~736	257 0005 928	Ceramic chip 180pF/50V	CC73SL1H181J	C881,882	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J
C737,738	255 1264 940	Mylar film 2200pF/50V	CQ93M1H222J(B)	C885,886	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)
C739,740	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)	C887,888	255 1264 924	Mylar film 1500pF/50V	CQ93M1H152J(B)
C741,742	254 4538 926	Electrolytic 33μF/16V	CE04W1C330M(SMG/RE3)	C889	254 4538 942	Electrolytic 100μF/16V	CE04W1C101M(SMG/RE3)
C743~746	257 0005 928	Ceramic chip 180pF/50V	CC73SL1H181J	C892	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z
C747,748	255 1264 940	Mylar film 2200pF/50V	CQ93M1H222J(B)	C893	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K
C749,750	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)	C895	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z
C751,752	254 4538 926	Electrolytic 33μF/16V	CE04W1C330M(SMG/RE3)	C897	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K
				C899	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K
				C900	257 0011 909	Ceramic chip 0.01μF/25V	CK73B1E103K
				C901,902	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K
				C903	254 4536 928	Electrolytic 100μF/10V	CE04W1A101M(SMG/RE3)

## 1U-3232 POWER UNIT ASS'Y

Ref. No.	Part No.	Part Name	Remarks		Ref. No.	Part No.	Part Name	Remarks
<b>SEMICONDUCTORS GROUP</b>								
C904	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z		IC401	262 2692 001	IC BU4052BC	
C906	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)		IC402	263 0856 004	IC BA7625	
C907,908	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z		IC450	263 0856 004	IC BA7625	
C910	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z		IC501	268 0073 905	IC ICP-N15	
C911	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)		IC502	263 0793 002	IC NJM7806FA(S)	
C913	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z		TR401~403	271 0290 904	Transistor 2PA1015GR	
C915,916	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z		TR507,508	273 0454 908	Transistor 2SC1645S(B)	
C919,920	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z		TR511,512	274 0158 016	Transistor 2SD1763A(E)	
C922~925	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z		TR513,514	272 0115 011	Transistor 2SB1186A(E)	
C926~929	254 4536 928	Electrolytic 100μF/10V	CE04W1A101M(SMG/RE3)		TR519,520	273 0235 923	Transistor 2SC1841(E/F)	
C930	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z		TR527,528	273 0454 908	Transistor 2SC1645S(B)	
C931	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z		TR531,532	274 0158 016	Transistor 2SD1763A(E)	
C932	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z		TR533,534	272 0115 011	Transistor 2SB1186A(E)	
C933	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z		TR539,540	273 0235 923	Transistor 2SC1841(E/F)	
<b>OTHER PARTS GROUP</b>				Q'ty	TR544	273 0454 908	Transistor 2SC1645S(B)	
CW051	205 0885 008	5P connector socket (TUC-P)		1	TR546	274 0158 016	Transistor 2SD1763A(E)	
CW061,062	205 0942 019	6P connector socket (TUC-P)		2	TR547	272 0115 011	Transistor 2SB1186A(E)	
CW071,072	205 0942 022	7P connector socket (TUC-P)		2	TR550	273 0235 923	Transistor 2SC1841(E/F)	
CW082	205 0885 095	8P connector socket (TUC-P)		1	TR551	271 0131 924	Transistor 2SA988(E/F)	
CW111	205 0885 066	11P connector socket (TUC-P)		1	TR554	273 0429 904	Transistor 2SC3311A	
CW141	205 0885 011	14P connector socket (TUC-P)		1	TR555	271 0192 905	Transistor 2SA933(S)	
FB302~308	235 0106 908	EMI filter		7	TR556,557	273 0429 904	Transistor 2SC3311A	
FB701,702	235 0049 900	Beads inductor		2	TR558	271 0192 905	Transistor 2SA933(S)	
FB704~714	235 0049 900	Beads inductor		11	TR559~566	273 0429 904	Transistor 2SC3311A	
FB715	244 2043 937	Metal oxide 10ohm 1W	RS14B3A100JNBS(S)	1	D401~404	276 0432 903	Diode 1SS270A	
FB717	244 2043 937	Metal oxide 10ohm 1W	RS14B3A100JNBS(S)	1	D501~505	276 0432 903	Diode 1SS270A	
FB719	244 2043 937	Metal oxide 10ohm 1W	RS14B3A100JNBS(S)	1	D507~512	276 0704 903	Diode 1SR35-400A	
FB800~804	235 0049 900	Beads inductor		5	D513~517	276 0432 903	Diode 1SS270A	
FB807~814	235 0049 900	Beads inductor		8	D518,519	276 0305 001	Diode S4VB20	
FB815	235 0106 908	EMI filter		1	D520	276 0432 903	Diode 1SS270A	
FB816	235 0049 900	Beads inductor		1	D526~535	276 0432 903	Diode 1SS270A	
FB817	235 0106 908	EMI filter		1	ZD501	276 0644 911	Zener diode MTZJ7.5A	
JK106~108	204 8513 010	6P pin jack (S-GND)		3	ZD502~511	276 0634 905	Zener diode MTZJ3.3A	
L801	235 0106 908	EMI filter		1	<b>RESISTORS GROUP</b>			
L803~805	235 0106 908	EMI filter		3	R525~528	244 2052 957	Metal oxide 5.6kohm 1W	RS14B3A562JNBS(S)
X302	399 0532 902	Ceramic resonator	CST12.5MTW-TF01	1	R537,538	241 2378 962	Carbon film 330ohm 1/4W(NB)	RD14B2E331JNBS
XL802	399 0575 008	Crystal 12.287MHz	SG-8002DCPT	1	R539~542	241 2387 908	Carbon film 1ohm 1/4W(NB)	RD14B2E010JNBS
	207 0021 004	IC socket	for IC303,817	2	R543~550	244 2043 982	Metal oxide 0.22ohm 1W	RS14B3AR22JNBS(S)
	001 0063 095	Vinyl wire		1	R551,552	241 2379 987	Carbon film 1kohm 1/4W(NB)	RD14B2E102JNBS
	412 4571 000	Earth plate(C)		1	R557,558	244 2043 937	Metal oxide 10ohm 1W	RS14B3A100JNBS(S)
					R567,568	244 2043 937	Metal oxide 10ohm 1W	RS14B3A100JNBS(S)
					R571	244 2043 937	Metal oxide 10ohm 1W	RS14B3A100JNBS(S)
					R605~608	244 2052 957	Metal oxide 5.6kohm 1W	RS14B3A562JNBS(S)
					R619,620	241 2378 962	Carbon film 330ohm 1/4W(NB)	RD14B2E331JNBS

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
R621~624	241 2387 908	Carbon film 1ohm 1/4W(NB)	RD14B2E010JNBS	C553,554	256 1058 939	Metallized 0.047μF/50V	CF93A1H473J(JL) for E2
R625~632	244 2043 982	Metal oxide 0.22ohm 1W	RS14B3AR22JNBS(S)	C553,554	255 1265 978	Mylar film 0.022μF/50V	CQ93M1H223J(B) for E3,EU,E1,E1C,E1H,E3T
R633,634	241 2379 987	Carbon film 1kohm 1/4W(NB)	RD14B2E102JNBS	C566	254 4525 913	Electrolytic 47μF/50V	CE04W1H470M(SMG/RE3)
R639~642	244 2043 937	Metal oxide 10ohm 1W	RS14B3A100JNBS(S)	C567	254 4527 982	Electrolytic 10μF/100V	CE04W2A100M(SMG/RE3)
R647,648	244 2043 937	Metal oxide 10ohm 1W	RS14B3A100JNBS(S)	C570	256 1058 971	Metallized 0.1μF/50V	CF93A1H104J(JL)
R672,673	244 2052 957	Metal oxide 5.6kohm 1W	RS14B3A562JNBS(S)	C572	256 1058 939	Metallized 0.047μF/50V	CF93A1H473J(JL) for E2
R679	241 2378 962	Carbon film 330ohm 1/4W(NB)	RD14B2E331JNBS	C572	255 1265 978	Mylar film 0.022μF/50V	CQ93M1H223J(B) for E3,EU,E1,E1C,E1H,E3T
R680,681	241 2387 908	Carbon film 1ohm 1/4W(NB)	RD14B2E010JNBS	C573	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103Z
R682~685	244 2043 982	Metal oxide 0.22ohm 1W	RS14B3AR22JNBS(S)	C583	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)
R686	241 2379 987	Carbon film 1kohm 1/4W(NB)	RD14B2E102JNBS	C584	253 9039 906	Ceramic 0.1μF/25V	CK45=1E104Z
R690	244 2043 937	Metal oxide 10ohm 1W	RS14B3A100JNBS(S)	C585	254 6190 906	Electrolytic 330μF/6.3V	CE04W0J331M(SRA)
R694	244 2043 937	Metal oxide 10ohm 1W	RS14B3A100JNBS(S)	C586	253 9039 906	Ceramic 0.1μF/25V	CK45=1E104Z
R714,715	243 2039 032	Winding 0.1ohm 5W	RW99=3H0R1K	C587	254 4533 947	Electrolytic 330μF/6.3V	CE04W0J331M(SMG/RE3)
R734	242 2009 001	Composition 2.2Mohm 1/2W	RC05GF2H225K(UL) for E3,EU,E3T	C588	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103Z
R757,758	244 2052 960	Metal oxide 220ohm 1W	RS14B3A221JNBS(S)	C589	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)
VR501~505	211 6132 909	Semi fixed resistor 4.7kohm	V06PB472	C590	254 4524 943	Electrolytic 1μF/50V	CE04W1H010M(SMG/RE3)
<b>CAPACITORS GROUP</b>				C591~593	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103Z
C401~405	254 4306 909	Electrolytic 4.7μF/50V	CE04W1H4R7M(SRE)	C594	254 4403 721	Electrolytic 2200μF/25V	CE04W1E222M(SMG)
C406~408	254 6190 906	Electrolytic 330μF/6.3V	CE04W0J331M(SRA)	C595	254 4524 943	Electrolytic 1μF/50V	CE04W1H010M(SMG/RE3)
C410	254 4302 974	Electrolytic 100μF/10V	CE04W1A101M(SRE)	C599	256 1058 971	Metallized 0.1μF/50V	CF93A1H104J(JL)
C411,412	254 4299 906	Electrolytic 10μF/16V	CE04W1C100M(SRE)	C601	254 4524 943	Electrolytic 1μF/50V	CE04W1H010M(SMG/RE3)
C413	254 4305 968	Electrolytic 1μF/50V	CE04W1H010M(SRE)	C602	254 6213 702	Electrolytic 10000μF/71V	CE68W==103M(DL)
C414	253 1181 917	Ceramic 0.022μF/50V	CK45F1H223Z	C603,604	256 1042 903	Metallized 0.1μF/250V	CF93A2E104K
C415	254 4299 906	Electrolytic 10μF/16V	CE04W1C100M(SRE)	C605	254 6213 702	Electrolytic 10000μF/71V	CE68W==103M(DL)
C416	254 4302 974	Electrolytic 100μF/10V	CE04W1A101M(SRE)	C606~608	256 1042 903	Metallized 0.1μF/250V	CF93A2E104K
C420	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103Z	C609~612	255 1265 936	Mylar film 0.01μF/50V	CQ93M1H103J(B)
C422	253 1181 917	Ceramic 0.022μF/50V	CK45F1H223Z	C613~616	255 1265 936	Mylar film 0.01μF/50V	CQ93M1H103J(B) for E2
C423	254 4299 906	Electrolytic 10μF/16V	CE04W1C100M(SRE)	C617,618	256 1058 939	Metallized 0.047μF/50V	CF93A1H473J(JL) for E2
C441	254 4306 909	Electrolytic 4.7μF/50V	CE04W1H4R7M(SRE)	C617,618	255 1265 978	Mylar film 0.022μF/50V	CQ93M1H223J(B) for E3,EU,E1,E1C,E1H,E3T
C442	254 4305 968	Electrolytic 1μF/50V	CE04W1H010M(SRE)	C631,632	255 1265 936	Mylar film 0.01μF/50V	CQ93M1H103J(B) for E2
C443	253 1181 917	Ceramic 0.022μF/50V	CK45F1H223Z	C646	254 4262 784	Electrolytic 470μF/63V	CE04W1J471M
C444	254 4299 906	Electrolytic 10μF/16V	CE04W1C100M(SRE)	C648	253 8014 702	Ceramic 0.01μF/400V(AC)	CK45F2GAC103MC
C445~447	254 4306 909	Electrolytic 4.7μF/50V	CE04W1H4R7M(SRE)	C649	255 1265 936	Mylar film 0.01μF/50V	CQ93M1H103J(B) for E2
C450	254 4306 909	Electrolytic 4.7μF/50V	CE04W1H4R7M(SRE)	<b>OTHER PARTS GROUP</b>			
C501,502	253 4543 905	Ceramic 220pF/500V	CC45SL2H221J	Q'ty			
C505,506	253 4543 905	Ceramic 220pF/500V	CC45SL2H221J	△ AC501	203 3976 002	AC outlet (2P)	for E3,EU,E3T
C509	253 4543 905	Ceramic 220pF/500V	CC45SL2H221J	CW121	205 0885 079	12P connector socket (TUC-P)	1
C513,514	254 4525 913	Electrolytic 47μF/50V	CE04W1H470M(SMG/RE3)	CX021	205 0581 001	2P VH connector base	for E2,E1,E1C, E1H,E3T
C515,516	254 4527 982	Electrolytic 10μF/100V	CE04W2A100M(SMG/RE3)	CX022	205 0768 002	2P VH connector base(BLK)	1
C521	256 1058 971	Metallized 0.1μF/50V	CF93A1H104J(JL)				
C522	256 1058 971	Metallized 0.1μF/50V	CF93A1H104J(JL)				
C525,526	256 1058 939	Metallized 0.047μF/50V for E2	CF93A1H473J(JL)				
C525,526	255 1265 978	Mylar film 0.022μF/50V for E3,EU,E1,E1C,E1H,E3T	CQ93M1H223J(B)				
C541,542	254 4525 913	Electrolytic 47μF/50V	CE04W1H470M(SMG/RE3)				
C545,546	254 4527 982	Electrolytic 10μF/100V	CE04W2A100M(SMG/RE3)				
C549,550	256 1058 971	Metallized 0.1μF/50V	CF93A1H104J(JL)				

## 1U-3233 EXT. IN UNIT ASS'Y

Ref. No.	Part No.	Part Name	Remarks	Q'ty
CX023	205 1093 006	2P VH connector base	for E2,E1,E1H	1
CX024	205 0581 001	2P VH connector base		1
CX031	205 0343 032	3P connector base(KR-PH)		1
CX032	205 0841 000	3P AC connector base (BK)	for E1,E1H	1
CX033	205 0825 000	3P AC connector base		1
CX054~057	205 0884 009	5P connector base(TUC-P)		4
CX074	205 0943 021	7P connector base(TUC-P)		1
CX085	205 0884 096	8P connector base(TUC-P)		1
CX092	205 0884 038	9P connector base(TUC-P)		1
CX960~969	205 1064 064	6P pin header(TXX)V		10
△ F1	206 1046 001	Fuse 6.3A	for E3,EU,E3T	1
△ F1	206 1015 032	Fuse 2.5A	for E2,E1C	1
△ F1	206 1015 090	Fuse 5A	for E1,E1H	1
△ F8	206 1046 014	Fuse 8A	for E3,EU,E3T	1
△ F8	206 1015 032	Fuse 2.5A	for E2,E1,E1H	1
FF501,502	202 0040 909	Fuse clip		2
FH501,502	202 0040 909	Fuse clip		2
JK401	204 8516 017	3P pin jack		1
JK402	204 8583 008	2P pin jack (VIDEO)		1
JK403	204 8516 017	3P pin jack		1
JK601	205 0472 026	8P SP terminal (EAEK)		1
JK603	205 1108 001	6P SP terminal (E3)		1
RL501	214 0200 001	Relay(EC2-12N35)		1
RL502~505	214 0195 006	Relay(FTR-F1)		4
RL506	214 0188 000	Relay VS-12MBNR-SM2(TV-8)		1
SC501	279 0016 904	Thyristor SF0R1A42		1
△ T501	233 6073 107	Power trans. (Mini) -E3	for E3,EU,E3T	1
△ T501	233 6058 025	Power trans. (Mini) -E2	for E2,E1C	1
△ T501	233 6278 009	Power trans. (Mini) -E1	for E1,E1H	1
TP501~505	205 0133 035	3 P NH connector base		5
TP510	205 0133 035	3 P NH connector base		1
	513 2585 074	Fuse label	for F1 for E2,E1C	
	513 2654 060	Fuse label	for F1 for E1,E1H	
	513 2585 074	Fuse label	for F8 for E2,E1,E1H	1
	415 0299 000	Condenser cover	for C648 for E2,E1,E1C,E1H	1

Ref. No.	Part No.	Part Name	Remarks
<b>SEMICONDUCTORS GROUP</b>			
IC101	262 2549 002	IC LC75721E	
IC102	499 0290 007	Remocon sensor GP1U271X	
IC103	262 2375 904	IC TC4094BF	
IC301~304	263 0896 909	IC NJM2068MD	
IC308,309	263 0896 909	IC NJM2068MD	
IC310	263 0896 909	IC NJM2068MD	
IC311	262 1853 100	IC NJU7313AL	
IC701	263 0896 909	IC NJM2068MD	
IC801~803	263 0896 909	IC NJM2068MD	
IC805~807	262 2662 002	IC TC9459N	
TR102~110	269 0082 902	Transistor DTC114EK	
TR111	269 0083 901	Transistor DTA114EK	
TR112	269 0055 900	Transistor DTA144EK	
TR113~115	269 0054 901	Transistor DTC144EK	
TR116,117	269 0055 900	Transistor DTA144EK	
TR301~304	273 0414 906	Transistor 2SC3326(A/B)	
TR305	269 0055 900	Transistor DTA144EK	
TR306	269 0054 901	Transistor DTC144EK	
TR308	275 0094 908	FET 2SK209-GR	
TR311,312	273 0414 906	Transistor 2SC3326(A/B)	
TR314,315	273 0414 906	Transistor 2SC3326(A/B)	
TR323~326	273 0414 906	Transistor 2SC3326(A/B)	
TR327,328	275 0094 908	FET 2SK209-GR	
TR329	269 0054 901	Transistor DTC144EK	
TR330	269 0055 900	Transistor DTA144EK	
TR801~803	275 0094 908	FET 2SK209-GR	
TR805	269 0083 901	Transistor DTA114EK	
TR807	269 0054 901	Transistor DTC144EK	
D101,102	276 0637 902	Zener diode MTZJ6.2A	
D104	276 0644 937	Zener diode MTZJ9.1A	
D105	276 0637 902	Zener diode MTZJ6.2A	
D107	276 0637 902	Zener diode MTZJ6.2A	
D109	276 0432 903	Diode 1SS270A	
D110,111	276 0559 909	Diode DAP202K	
D304	276 0559 909	Diode DAP202K	
D323,324	276 0432 903	Diode 1SS270A	
D801~803	276 0432 903	Diode 1SS270A	
LD102~110	393 9434 906	LED SEL1210S	Red
FL101	393 8033 007	FLD (CM1690C)	

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
<b>RESISTORS GROUP</b>							
R101	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J	R349,350	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
R102~110	247 0007 903	Carbon chip 680ohm 1/10W	RM73B--681J	R352	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B--472J
R111	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J	R354	247 0009 914	Carbon chip 5.1kohm 1/10W	RM73B--512J
R112	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J	R355	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
R113	247 0005 976	Carbon chip 200ohm 1/10W	RM73B--201J	R357~360	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
R114	247 0006 917	Carbon chip 300ohm 1/10W	RM73B--301J	R361~364	247 0005 976	Carbon chip 200ohm 1/10W	RM73B--201J
R115	247 0006 975	Carbon chip 510ohm 1/10W	RM73B--511J	R365,366	247 0007 990	Carbon chip 1.6kohm 1/10W	RM73B--162J
R116	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J	R367~370	247 0011 902	Carbon chip 33kohm 1/10W	RM73B--333J
R117,118	247 0008 957	Carbon chip 3kohm 1/10W	RM73B--302J	R371,372	247 0012 927	Carbon chip 100kohm 1/10W	RM73B--104J
R124	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J	R373,374	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
R125	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J	R378,379	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
R126	247 0005 976	Carbon chip 200ohm 1/10W	RM73B--201J	R381,382	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
R127	247 0006 917	Carbon chip 300ohm 1/10W	RM73B--301J	R383,384	247 0012 927	Carbon chip 100kohm 1/10W	RM73B--104J
R128	247 0006 975	Carbon chip 510ohm 1/10W	RM73B--511J	R385,386	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
R129	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J				for E3,EU,E1,E1C, E1H,E3T
R139	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J	R385,386	247 0006 962	Carbon chip 470ohm 1/10W	RM73B--471J for E2
R140	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J	R387,388	247 0015 966	Carbon chip 2.7Mohm 1/10W	RM73B--275J
R141,142	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B--472J	R391,392	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
R153~155	247 0011 986	Carbon chip 68kohm 1/10W	RM73B--683J	R395~398	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
R156,157	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J	R401,402	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
R158,159	247 0011 986	Carbon chip 68kohm 1/10W	RM73B--683J				for E3,EU,E1,E1C, E1H,E3T
R160	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B--472J	R401,402	247 0006 962	Carbon chip 470ohm 1/10W	RM73B--471J for E2
R162~170	247 0011 986	Carbon chip 68kohm 1/10W	RM73B--683J	R403,404	247 0015 966	Carbon chip 2.7Mohm 1/10W	RM73B--275J
R171	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B--472J	R407,408	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
R173,174	247 0011 986	Carbon chip 68kohm 1/10W	RM73B--683J	R411~414	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
R175,176	247 0011 944	Carbon chip 47kohm 1/10W	RM73B--473J	R417,418	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
R177~181	247 0011 986	Carbon chip 68kohm 1/10W	RM73B--683J				for E3,EU,E1,E1C, E1H,E3T
R182	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J	R417,418	247 0006 962	Carbon chip 470ohm 1/10W	RM73B--471J for E2
R183~212	247 0011 986	Carbon chip 68kohm 1/10W	RM73B--683J	R403,404	247 0015 966	Carbon chip 2.7Mohm 1/10W	RM73B--275J
R213	247 0011 944	Carbon chip 47kohm 1/10W	RM73B--473J	R407,408	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
R301~304	247 0005 976	Carbon chip 200ohm 1/10W	RM73B--201J	R411~414	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
R305~308	247 0011 902	Carbon chip 33kohm 1/10W	RM73B--333J	R417,418	247 0006 962	Carbon chip 470ohm 1/10W	RM73B--471J for E2
R309,310	247 0012 927	Carbon chip 100kohm 1/10W	RM73B--104J	R419,420	247 0015 966	Carbon chip 2.7Mohm 1/10W	RM73B--275J
R311,312	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J	R423,424	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
R313,314	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K	R427,430	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
R315,316	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J	R433~438	247 0011 928	Carbon chip 39kohm 1/10W	RM73B--393J
R317,318	247 0012 927	Carbon chip 100kohm 1/10W	RM73B--104J	R439,440	247 0004 922	Carbon chip 47ohm 1/10W	RM73B--470J
R319~321	247 0011 944	Carbon chip 47kohm 1/10W	RM73B--473J	R441442	247 0012 927	Carbon chip 100kohm 1/10W	RM73B--104J
R325	247 0010 974	Carbon chip 24kohm 1/10W	RM73B--243J	R445	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B--472J
R326	247 0011 944	Carbon chip 47kohm 1/10W	RM73B--473J	R446,447	247 0008 960	Carbon chip 3.3kohm 1/10W	RM73B--332J
R327	247 0010 974	Carbon chip 24kohm 1/10W	RM73B--243J	R448~450	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B--472J
R328,329	247 0011 944	Carbon chip 47kohm 1/10W	RM73B--473J	R451,452	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
R333	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J	R453,454	247 0012 927	Carbon chip 100kohm 1/10W	RM73B--104J
R334	247 0012 927	Carbon chip 100kohm 1/10W	RM73B--104J	R455	247 0011 944	Carbon chip 47kohm 1/10W	RM73B--473J
R336	247 0011 944	Carbon chip 47kohm 1/10W	RM73B--473J	R456	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
R337~340	247 0005 976	Carbon chip 200ohm 1/10W	RM73B--201J	R457	247 0010 916	Carbon chip 13kohm 1/10W	RM73B--133J
R341,342	247 0007 990	Carbon chip 1.6kohm 1/10W	RM73B--162J	R458	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B--472J
R343~346	247 0011 902	Carbon chip 33kohm 1/10W	RM73B--333J	R459	247 0009 927	Carbon chip 5.6kohm 1/10W	RM73B--562J
R347,348	247 0012 927	Carbon chip 100kohm 1/10W	RM73B--104J	R460	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B--472J

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
R461	247 0009 930	Carbon chip 6.2kohm 1/10W	RM73B-622J	R857	247 0009 985	Carbon chip 10kohm 1/10W	RM73B-103J
R462	247 0005 905	Carbon chip 100ohm 1/10W	RM73B-101J	R858	247 0007 945	Carbon chip 1kohm 1/10W	RM73B-102J
R463	247 0012 927	Carbon chip 100kohm 1/10W	RM73B-104J	R859~864	247 0011 944	Carbon chip 47kohm 1/10W	RM73B-473J
R464	247 0007 945	Carbon chip 1kohm 1/10W	RM73B-102J	R867~869	247 0012 927	Carbon chip 100kohm 1/10W	RM73B-104J
R481,482	247 0018 905	Carbon chip 0ohm 1/10W	RM73B-0R0K	R871,872	247 0012 927	Carbon chip 100kohm 1/10W	RM73B-104J
R483	247 0007 945	Carbon chip 1kohm 1/10W	RM73B-102J	<b>CAPACITORS GROUP</b>			
R485~490	247 0018 905	Carbon chip 0ohm 1/10W	RM73B-0R0K	C102	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z
R493~498	247 0012 927	Carbon chip 100kohm 1/10W	RM73B-104J	C103	254 4193 905	Electrolytic 10μF/16V	CE04W1C100M(SRA)
R701,702	247 0007 974	Carbon chip 1.3kohm 1/10W	RM73B-132J for E2	C104	254 4196 944	Electrolytic 1μF/50V	CE04W1H010M(SRA)
R701,702	247 0018 905	Carbon chip 0ohm 1/10W	RM73B-0R0K for E3,EU,E1,E1C,E1H,E3T	C107	256 1058 971	Metalлизed 0.1μF/50V	CF93A1H104J(JL)
R703,704	247 0006 946	Carbon chip 390ohm 1/10W	RM73B-391J	C109	254 4196 999	Electrolytic 22μF/50V	CE04W1H220M(SRA)
R705,706	247 0011 986	Carbon chip 68kohm 1/10W	RM73B-683J	C110~113	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z
R707,708	247 0012 969	Carbon chip 150kohm 1/10W	RM73B-154J	C115	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z
R709,710	247 0004 922	Carbon chip 47ohm 1/10W	RM73B-470J	C117	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K
R711,712	247 0005 992	Carbon chip 240ohm 1/10W	RM73B-241J	C120	257 0003 933	Ceramic chip 30pF/50V	CC73SL1H300J
R713,714	247 0012 956	Carbon chip 130kohm 1/10W	RM73B-134J	C121	254 4193 905	Electrolytic 10μF/16V	CE04W1C100M(SRA)
R715,716	247 0009 998	Carbon chip 11kohm 1/10W	RM73B-113J	C122	257 0012 982	Ceramic chip 0.022μF/50V	CK73F1H223Z
R717,718	247 0003 949	Carbon chip 22ohm 1/10W	RM73B-220J	C125	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z
R719,720	247 0004 922	Carbon chip 47ohm 1/10W	RM73B-470J	C301,302	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)
R721,722	247 0011 944	Carbon chip 47kohm 1/10W	RM73B-473J	C307,308	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)
R723,724	247 0005 905	Carbon chip 100ohm 1/10W	RM73B-101J for E3,EU,E1,E1C, E1H,E3T	C311,312	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)
R723,724	247 0006 962	Carbon chip 470ohm 1/10W	RM73B-471J for E2	C318	256 1058 984	Metalлизed 0.12μF/50V	CF93A1H124J(JL)
R725,726	247 0015 966	Carbon chip 2.7Mohm 1/10W	RM73B-275J	C319	256 1058 942	Metalлизed 0.056μF/50V	CF93A1H563J(JL)
R729~732	247 0018 905	Carbon chip 0ohm 1/10W	RM73B-0R0K	C320	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)
R801,802	247 0012 927	Carbon chip 100kohm 1/10W	RM73B-104J	C323,324	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)
R803,804	247 0005 905	Carbon chip 100ohm 1/10W	RM73B-101J	C325,326	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J
R805,806	247 0007 916	Carbon chip 750ohm 1/10W	RM73B-751J	C327,328	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)
R807,808	247 0009 943	Carbon chip 6.8kohm 1/10W	RM73B-682J	C331~334	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)
R809,810	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B-472J	C335,336	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J
R811,812	247 0011 944	Carbon chip 47kohm 1/10W	RM73B-473J	C337,338	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)
R813,814	247 0005 905	Carbon chip 100ohm 1/10W	RM73B-101J	C341	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)
R815~818	247 0012 927	Carbon chip 100kohm 1/10W	RM73B-104J	C343,344	257 0005 986	Ceramic chip 330pF/50V	CC73SL1H331J for E2
R819,820	247 0005 905	Carbon chip 100ohm 1/10W	RM73B-101J	C355,356	257 0005 986	Ceramic chip 330pF/50V	CC73SL1H331J for E2
R821,822	247 0007 916	Carbon chip 750ohm 1/10W	RM73B-751J	C367,368	257 0005 986	Ceramic chip 330pF/50V	CC73SL1H331J for E2
R823	247 0009 943	Carbon chip 6.8kohm 1/10W	RM73B-682J	C379~382	256 1058 955	Metalлизed 0.068μF/50V	CF93A1H683J(JL)
R824	247 0009 969	Carbon chip 8.2kohm 1/10W	RM73B-822J	C385,386	254 4524 943	Electrolytic 1μF/50V	CE04W1H010M(SMG/RE3)
R825	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B-472J	C387,388	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)
R827,828	247 0005 905	Carbon chip 100ohm 1/10W	RM73B-101J	C389,390	254 4524 943	Electrolytic 1μF/50V	CE04W1H010M(SMG/RE3)
R829	247 0011 944	Carbon chip 47kohm 1/10W	RM73B-473J	C395,396	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J
R831,834	247 0012 927	Carbon chip 100kohm 1/10W	RM73B-104J	C397,398	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)
R835,836	247 0005 905	Carbon chip 100ohm 1/10W	RM73B-101J	C399,400	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z
R837,838	247 0007 916	Carbon chip 750ohm 1/10W	RM73B-751J	C401,402	254 4524 943	Electrolytic 1μF/50V	CE04W1H010M(SMG/RE3)
R839,840	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B-472J	C403	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K
R841,842	247 0005 905	Carbon chip 100ohm 1/10W	RM73B-101J	C405	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J
R843,844	247 0012 927	Carbon chip 100kohm 1/10W	RM73B-104J	C407	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J
				C408	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)
				C409	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks	Q'ty
C412	254 4524 943	Electrolytic 1μF/50V	CE04W1H010M(SMG/RE3)	CW052	205 0885 008	5P connector socket (TUC-P)		1
C414	254 4524 943	Electrolytic 1μF/50V	CE04W1H010M(SMG/RE3)	CW063	205 0942 019	6P connector socket (TUC-P)		1
C416	254 4524 943	Electrolytic 1μF/50V	CE04W1H010M(SMG/RE3)	CW079	205 0942 022	7P connector socket (TUC-P)		1
C459~461	254 4524 901	Electrolytic 0.1μF/50V	CE04W1H0R1M(SMG/RE3)	CW083	205 0885 095	8P connector socket (TUC-P)		1
C462,463	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J	CW091	205 0885 037	9P connector socket (TUC-P)		1
C703,704	257 0005 944	Ceramic chip 220pF/50V	CC73SL1H221J	CW101	205 1000 002	10P FJ connector plug		1
C705,706	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)	CW112	205 0885 066	11P connector socket (TUC-P)		1
C707,708	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J	CW123	205 0885 079	12P connector socket (TUC-P)		1
C709,710	254 4533 934	Electrolytic 220μF/6.3V	CE04W0J221M(SMG/RE3)	CW161,162	205 1055 028	16P connector base (TKC-V)		2
C711,712	255 4199 999	Mylar film 0.024μF/50V	CQ92M1H243J(MRZ)	CX932	205 1121 033	3P CON.BASE-L(5268)		1
C713,714	255 1265 907	Mylar film 6800pF/50V	CQ93M1H682J(B)	CY021	205 0581 001	2P VH connector base	for E2,E1,E1C, E1H,E3T	1
C715,716	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)	FB101	235 0049 900	Beads inductor		1
C717,718	257 0012 982	Ceramic chip 0.022μF/50V	CK73F1H223Z	FB701	247 0018 905	Carbon chip 0ohm 1/10W	RM73B~0R0K	1
C719,720	257 0005 986	Ceramic chip 330pF/50V	CC73SL1H331J for E2	JK301	204 8513 010	6P pin jack (S-GND)		1
C725,726	247 0018 905	Carbon chip 4.7Mohm 1/10W	RM73B~475K	JK701	204 8545 004	4P pin jack (GND)		1
C729,730	254 4524 943	Electrolytic 1μF/50V	CE04W1H010M(SMG/RE3)	L301~304	235 0049 900	Beads inductor		4
C741,742	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z	L701,702	235 9003 002	FTZ choke coil	for E2	2
C801,802	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)	S101~112	212 5611 903	Tact switch		12
C803,804	257 0003 988	Ceramic chip 47pF/50V	CC73SL1H470J	S113	212 0373 000	Rotary encoder EC16B		1
C807,808	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J	S114	212 0422 003	Rotary encoder		1
C809,810	255 1265 923	Mylar film 8200pF/50V	CQ93M1H822J(B)	S901	212 1030 009	Power switch (TV-5)	for E2,E1,E1C, E1H,E3T	1
C811,812	254 4524 943	Electrolytic 1μF/50V	CE04W1H010M(SMG/RE3)	ST002	205 0452 004	Style pin		1
C813,814	257 0012 982	Ceramic chip 0.022μF/50V	CK73F1H223Z		203 0526 002	1P connector cord Ass'y	W724	1
C815,816	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)		203 0525 029	1P SIN cord Ass'y	W726 to W727	1
C817,818	257 0003 988	Ceramic chip 47pF/50V	CC73SL1H470J		414 0799 109	Shield plate		1
C821,822	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J					
C823	255 1265 923	Mylar film 8200pF/50V	CQ93M1H822J(B)					
C825,826	254 4524 943	Electrolytic 1μF/50V	CE04W1H010M(SMG/RE3)					
C827,828	257 0012 982	Ceramic chip 0.022μF/50V	CK73F1H223Z					
C829,830	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)					
C831,832	257 0003 988	Ceramic chip 47pF/50V	CC73SL1H470J					
C835,836	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J					
C837,838	254 4524 943	Electrolytic 1μF/50V	CE04W1H010M(SMG/RE3)					
C839,840	257 0012 982	Ceramic chip 0.022μF/50V	CK73F1H223Z					
C853	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K					
C855	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K					
C857	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K					
C860	254 4524 943	Electrolytic 1μF/50V	CE04W1H010M(SMG/RE3)					
C861,862	254 4538 939	Electrolytic 47μF/16V	CE04W1C470M(SMG/RE3) for E2					
C861,862	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3) for E3,EU,E1,E1C,E1H,E3T					
C863,864	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)					
C869,870	254 4538 939	Electrolytic 47μF/16V	CE04W1C470M(SMG/RE3) for E2					
C869,870	254 4524 969	Electrolytic 3.3μF/50V	CE04W1H3R3M(SMG/RE3) for E3,EU,E1,E1C,E1H,E3T					
C871	254 4524 969	Electrolytic 3.3μF/50V	CE04W1H3R3M(SMG/RE3)					
C873,874	254 4524 969	Electrolytic 3.3μF/50V	CE04W1H3R3M(SMG/RE3)					

## 1U-3234 CONTROL UNIT ASS'Y

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
<b>SEMICONDUCTORS GROUP</b>							
IC102	262 2616 003	IC TC9184AP		R114,115	247 0011 928	Carbon chip 39kohm 1/10W	RM73B-393J
IC103,104	263 0896 909	IC NJM2068MD		R116	247 0013 984	Carbon chip 470kohm 1/10W	RM73B-474J
IC301	262 1701 906	IC SAA6579T	for E2	R117,118	247 0014 909	Carbon chip 560kohm 1/10W	RM73B-564J
IC302	262 1929 908	IC LC7074M	for E2	R119,120	247 0004 922	Carbon chip 47ohm 1/10W	RM73B-470J
IC303	262 2722 007	IC TMP88CU74F		R121,122	247 0009 927	Carbon chip 5.6kohm 1/10W	RM73B-562J
IC304	262 2375 904	IC TC4094BF		R123,124	247 0010 987	Carbon chip 27kohm 1/10W	RM73B-273J
IC702,703	269 0178 007	IC GP1F37R (OPT. IN)		R125,126	247 0007 945	Carbon chip 1kohm 1/10W	RM73B-102J
IC704	262 1205 907	IC TC74HCU04AF		R127,128	247 0012 927	Carbon chip 100kohm 1/10W	RM73B-104J
IC705	262 2213 901	IC TC74HC151AF		R129-132	247 0018 905	Carbon chip 0ohm 1/10W	RM73B-0R0K
TR301	274 0163 904	Transistor 2SD601A		R135,136	247 0018 905	Carbon chip 0ohm 1/10W	RM73B-0R0K
TR302	271 0291 903	Transistor 2SA1182Y/O		R141-143	247 0005 905	Carbon chip 100ohm 1/10W	RM73B-101J
TR303	269 0054 901	Transistor DTC144EK		R145,146	247 0005 905	Carbon chip 100ohm 1/10W	RM73B-101J
TR304	269 0082 902	Transistor DTC114EK		R304-307	247 0009 985	Carbon chip 10kohm 1/10W	RM73B-103J
TR305	269 0055 900	Transistor DTA144EK		R308	247 0005 905	Carbon chip 100ohm 1/10W	RM73B-101J
TR306	269 0054 901	Transistor DTC144EK		R309	247 0009 985	Carbon chip 10kohm 1/10W	RM73B-103J
TR307	269 0083 901	Transistor DTA114EK		R310,311	247 0007 945	Carbon chip 1kohm 1/10W	RM73B-102J
TR308,309	269 0054 901	Transistor DTC144EK		R312	247 0009 985	Carbon chip 10kohm 1/10W	RM73B-103J
TR901	271 0131 924	Transistor 2SA988(E/F)		R313	247 0007 945	Carbon chip 1kohm 1/10W	RM73B-102J
TR902	273 0445 001	Transistor 2SC4495		R314	247 0009 985	Carbon chip 10kohm 1/10W	RM73B-103J
TR904,905	271 0131 924	Transistor 2SA988(E/F)		R315	247 0018 905	Carbon chip 0ohm 1/10W	RM73B-0R0K
TR906-908	269 0083 901	Transistor DTA114EK		R316	247 0005 905	Carbon chip 100ohm 1/10W	RM73B-101J
TR910	269 0083 901	Transistor DTA114EK		R318	247 0005 905	Carbon chip 100ohm 1/10W	RM73B-101J
TR911	271 0131 924	Transistor 2SA988(E/F)		R320	247 0005 905	Carbon chip 100ohm 1/10W	RM73B-101J
D301	276 0432 903	Diode 1SS270A	for E2	R324-326	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B-472J
D302	276 0432 903	Diode 1SS270A		R327	247 0009 985	Carbon chip 10kohm 1/10W	RM73B-103J
D303	276 0634 905	Zener diode MTZJ3.3A		R329	247 0009 985	Carbon chip 10kohm 1/10W	RM73B-103J
D304	276 0432 903	Diode 1SS270A		R330	247 0005 905	Carbon chip 100ohm 1/10W	RM73B-101J
D305,306	276 0704 903	Diode 1SR35-400A		R331	247 0009 985	Carbon chip 10kohm 1/10W	RM73B-103J
D701	276 0432 903	Diode 1SS270A		R333,334	247 0009 985	Carbon chip 10kohm 1/10W	RM73B-103J
D901-911	276 0432 903	Diode 1SS270A		R335	247 0011 944	Carbon chip 47kohm 1/10W	RM73B-473J
D913	276 0704 903	Diode 1SR35-400A		R340-342	247 0009 985	Carbon chip 10kohm 1/10W	RM73B-103J
D914	276 0645 978	Zener diode MTZJ36A		R343,344	247 0005 905	Carbon chip 100ohm 1/10W	RM73B-101J
D915	276 0704 903	Diode 1SR35-400A		R345	247 0018 905	Carbon chip 0ohm 1/10W	RM73B-0R0K
D916	276 0643 996	Zener diode MTZJ5.6A		R346	247 0005 905	Carbon chip 100ohm 1/10W	RM73B-101J
D917	276 0704 903	Diode 1SR35-400A		R347	247 0018 905	Carbon chip 0ohm 1/10W	RM73B-0R0K
<b>RESISTORS GROUP</b>				R347	247 0007 945	Carbon chip 1kohm 1/10W	RM73B-102J for E1,E1H
R101,102	247 0008 928	Carbon chip 2.2kohm 1/10W	for E2	R347	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B-472J for E1C,E3T
R103,104	247 0006 946	Carbon chip 390ohm 1/10W		R348	247 0018 905	Carbon chip 0ohm 1/10W	RM73B-0R0K for E3,EU
R105,106	247 0013 984	Carbon chip 470kohm 1/10W		R348	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B-472J for E1C,E3T
R107,108	247 0005 905	Carbon chip 100ohm 1/10W		R348	247 0009 914	Carbon chip 5.1kohm 1/10W	RM73B-512J for E1,E1H
R109,110	247 0012 901	Carbon chip 82kohm 1/10W		R349	247 0018 905	Carbon chip 0ohm 1/10W	RM73B-0R0K
R111,112	247 0009 901	Carbon chip 4.7kohm 1/10W		R350	247 0009 985	Carbon chip 10kohm 1/10W	RM73B-103J
R113	247 0013 984	Carbon chip 470kohm 1/10W		R351-353	247 0012 927	Carbon chip 100kohm 1/10W	RM73B-104J

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
<b>CAPACITORS GROUP</b>							
R356	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J	C101,102	254 4524 956	Electrolytic 2.2μF/50V	CE04W1H2R2M(SMG/RE3)
R357~360	247 0012 927	Carbon chip 100kohm 1/10W	RM73B--104J	C103,104	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J
R361,362	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B--472J	C105,106	254 4524 969	Electrolytic 3.3μF/50V	CE04W1H3R3M(SMG/RE3)
R363~365	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J	C107,108	256 1058 942	Metalized 0.056μF/50V	CF93A1H563J(JL)
R366	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K for E1,E1H	C109,110	255 1265 907	Mylar film 6800pF/50V	CQ93M1H682J(B)
R368	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J	C111,112	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J
R372,373	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J	C113,114	255 1265 949	Mylar film 0.012μF/50V	CQ93M1H123J(B)
R374	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J	C115,116	255 1264 953	Mylar film 2700pF/50V	CQ93M1H272J(B)
R375	241 2387 940	Carbon film 4.7ohm 1/4W(NB)	RD14B2E4R7JNBS	C117,118	254 4538 939	Electrolytic 47μF/16V	CE04W1C470M(SMG/RE3) for E2
R376	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J	C117,118	254 4524 972	Electrolytic 4.7μF/50V	CE04W1H4R7M(SMG/RE3) for E3,EU,E1,E1C,E1H,E3T
R377	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J for E2	C119,120	255 1265 978	Mylar film 0.022μF/50V	CQ93M1H223J(B)
R378~383	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J	C121,122	254 4524 972	Electrolytic 4.7μF/50V	CE04W1H4R7M(SMG/RE3)
R384	247 0007 974	Carbon chip 1.3kohm 1/10W	RM73B--132J for E1,E1H	C123,124	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z
R385	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K	C303	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K for E3,EU,E1,E1H
R702,703	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K	C304	257 0003 920	Ceramic chip 27pF/50V	CC73SL1H270J for E2
R706,707	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B--472J	C305	257 0010 984	Ceramic chip 0.047μF/50V	CK73B1H473K
R708	247 0004 977	Carbon chip 75ohm 1/10W	RM73B--750J	C308	254 4524 956	Electrolytic 2.2μF/50V	CE04W1H2R2M(SMG/RE3) for E2
R709	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J	C311	257 0003 920	Ceramic chip 27pF/50V	CC73SL1H270J for E2
R710	247 0008 928	Carbon chip 2.2kohm 1/10W	RM73B--222J	C312	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z for E2
R711	247 0011 944	Carbon chip 47kohm 1/10W	RM73B--473J	C314	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K
R712	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K	C316	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3) for E2
R801~804	247 0005 989	Carbon chip 220ohm 1/10W	RM73B--221J	C317	257 0010 984	Ceramic chip 0.047μF/50V	CK73B1H473K
R807~810	247 0012 927	Carbon chip 100kohm 1/10W	RM73B--104J	C321	257 0006 943	Ceramic chip 560pF/50V	CC73SL1H561J for E2
R901~904	247 0008 928	Carbon chip 2.2kohm 1/10W	RM73B--222J	C323	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3) for E2
R907	247 0014 909	Carbon chip 560kohm 1/10W	RM73B--564J	C325	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K
R909	247 0004 977	Carbon chip 75ohm 1/10W	RM73B--750J	C339	254 4536 957	Electrolytic 470μF/10V	CE04W1A471M(SMG/RE3)
R910	247 0008 902	Carbon chip 1.8kohm 1/10W	RM73B--182J	C340	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z
R911	247 0010 961	Carbon chip 22kohm 1/10W	RM73B--223J	C341	254 4538 939	Electrolytic 47μF/16V	CE04W1C470M(SMG/RE3)
R912	247 0008 973	Carbon chip 3.6kohm 1/10W	RM73B--362J	C342	257 0010 984	Ceramic chip 0.047μF/50V	CK73B1H473K
R913	247 0014 909	Carbon chip 560kohm 1/10W	RM73B--564J	C348	254 4538 939	Electrolytic 47μF/16V	CE04W1C470M(SMG/RE3)
R914	247 0013 984	Carbon chip 470kohm 1/10W	RM73B--474J	C349	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z
R915	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J	C350	256 1058 984	Metalized 0.12μF/50V	CF93A1H124J(JL)
R916	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J	C352	254 4304 927	Electrolytic 4.7μF/35V	CE04W1V4R7M(SRE)
R917	247 0013 984	Carbon chip 470kohm 1/10W	RM73B--474J	C353	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z
R918	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J	C354	254 4300 963	Electrolytic 100μF/6.3V	CE04W0J101M(SRE)
R919	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J	C355	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z
R920	247 0013 984	Carbon chip 470kohm 1/10W	RM73B--474J	C356	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K
R921	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J	C357	259 0007 702	Back up cap. 8200μF/5.5V	SB CAP==822=C
R922	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J	C358	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K
R926	247 0013 984	Carbon chip 470kohm 1/10W	RM73B--474J	C359	254 4533 934	Electrolytic 220μF/6.3V	CE04W0J221M(SMG/RE3)
R927	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J				
R928	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J				
R932	241 2387 940	Carbon film 4.7ohm 1/4W (NB)	RD14B2E4R7JNBS				
R933	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J				
R934	244 2055 996	Metal oxide 1.2kohm 1W	RS14B3A122JNBS(S)				
R939,940	244 2055 996	Metal oxide 1.2kohm 1W	RS14B3A122JNBS(S)				

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks	Q'ty
C367	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z	CW064	205 0942 019	6P connector socket (TUC-P)		1
C373	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K for E2,E1,E1C,E1H,E3T	CW066	205 0942 019	6P connector socket (TUC-P)		1
C375	257 0010 984	Ceramic chip 0.047μF/50V	CK73B1H473K	CW085	205 0885 095	8P connector socket (TUC-P)		1
C377	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)	CW092	205 0885 037	9P connector socket (TUC-P)		1
C385	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K for E2,E1C,E3T	CW116	205 0885 066	11P connector socket (TUC-P)		1
C390	256 1058 971	Metallized 0.1μF/50V	CF93A1H104J(JL)	CW124	205 0885 079	12P connector socket (TUC-P)		1
C393	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K	CW156	205 0885 040	15P connector socket (TUC-P)		1
C395	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K for E1, E1H	CX051,052	205 0884 009	5P connector base (TUC-P)		2
C397	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K	CX061-066	205 0943 018	6P connector base (TUC-P)		6
C398	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J	CX071,072	205 0943 021	7P connector base (TUC-P)		2
C399	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K	CX073	205 1000 015	7P FJ connector plug		1
C491	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K for E3,EU,E1,E1H	CX075,076	205 1000 015	7P FJ connector plug		2
C701	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z	CX079	205 0943 021	7P connector base (TUC-P)		1
C703,704	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z	CX082,083	205 0884 096	8P connector base (TUC-P)		2
C706,707	254 4538 939	Electrolytic 47μF/16V	CE04W1C470M(SMG/RE3)	CX091	205 0884 038	9P connector base (TUC-P)		1
C709	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z	CX111,112	205 0884 067	11P connector base (TUC-P)		2
C710	254 4524 969	Electrolytic 3.3μF/50V	CE04W1H3R3M(SMG/RE3)	CX116,117	205 0884 067	11P connector base (TUC-P)		2
C714	257 0003 904	Ceramic chip 22pF/50V	CC73SL1H220J	CX121	205 0884 070	12P connector base (TUC-P)		1
C715,716	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z	CX123,124	205 0884 070	12P connector base (TUC-P)		2
C717	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)	CX141	205 0884 012	14P connector base (TUC-P)		1
C718,719	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z	CX151	205 0884 041	15P connector base (TUC-P)		1
C857	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z	CX161,162	205 1056 027	16P connector socket TKC-V		2
C858	254 4524 943	Electrolytic 1μF/50V	CE04W1H010M(SMG/RE3)	FB302	235 0049 900	Beads inductor		1
C901	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103Z	FB304,305	235 0049 900	Beads inductor		2
C902	254 4524 956	Electrolytic 2.2μF/50V	CE04W1H2R2M(SMG/RE3)	FB704~706	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K	3
C903	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103Z	JK701	204 8593 001	1P pin jack (OR,NI)		1
C909	254 4524 943	Electrolytic 1μF/50V	CE04W1H010M(SMG/RE3)	JK801	204 8540 009	4P pin jack		1
C911	254 4527 908	Electrolytic 0.1μF/100V	CE04W2A0R1M(SMG/RE3)	L308	235 0131 902	EMI filter	BLM21B272S	1
C912	254 4524 985	Electrolytic 10μF/50V	CE04W1H100M(SMG/RE3)	L313-315	235 0131 902	EMI filter	BLM21B272S	3
C914	254 4524 901	Electrolytic 0.1μF/50V	CE04W1H0R1M(SMG/RE3)	L319	235 0131 902	EMI filter	BLM21B272S	1
C916~918	254 4524 901	Electrolytic 0.1μF/50V	CE04W1H0R1M(SMG/RE3)	L703	235 0060 905	Inductor 2.2μH		1
C919	254 4522 958	Electrolytic 100μF/35V	CE04W1V101M(SMG/RE3)	L704,705	235 0060 918	Inductor 4.7μH		2
C920	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z	ST004,005	205 0452 004	Style pin		2
C961	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z	W708,709	205 1034 010	M3 Screw terminal		2
C962	254 4524 943	Electrolytic 1μF/50V	CE04W1H010M(SMG/RE3)	X301	399 0178 007	Crystal	4.332MHz for E2	1
C981	257 0010 984	Ceramic chip 0.047μF/50V	CK73B1H473K	XL301	399 0191 903	Ceramic resonator	CST4.00MGW-TF01 for E2	1
C983	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K for E2,E1C,E3T	XL302	399 0532 902	Ceramic resonator	CST12.5MTW-TF01	1
C984	253 1180 921	Ceramic 1000pF/50V	CK45B1H102K for E2,E1C,E3T		203 0438 093	1P SIN connector Ass'y		1
					203 0438 080	1P SIN connector Ass'y		1

## 1U-3235 REGULATOR UNIT ASS'Y

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP				RESISTORS GROUP			
IC501	216 9013 004	FM front end(U) S	for E2	R501	247 0002 966	Carbon chip 10ohm 1/10W	RM73B--100J
IC501	216 0102 008	Front end	for E3,EU,E1,E1C,E1H,E3T	R502	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
IC502	263 0891 001	IC LA1265(S)		R503	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J
IC503	263 0439 007	IC LA3401		R504-512	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
IC507	262 2450 900	IC LC72131M		R514	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
IC902,903	263 0809 006	IC NJM7805FA(S)		R515	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
IC904	263 0793 002	IC NJM7806FA(S)		R516	247 0006 920	Carbon chip 330ohm 1/10W	RM73B--331J
IC906	263 0801 004	IC NJM7812FA(S)		R516	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J
IC907	263 0641 002	IC NJM7912FA		R517	247 0006 920	Carbon chip 330ohm 1/10W	RM73B--331J
TR501	275 0074 902	FET 2SK211-Y/GR	for E2	R518	247 0005 989	Carbon chip 220ohm 1/10W	RM73B--221J
TR502	273 0411 909	Transistor 2SC2996-Y		R519	247 0006 962	Carbon chip 470ohm 1/10W	RM73B--471J
TR503,504	269 0083 901	Transistor DTA114EK		R520	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J
TR505	269 0114 906	Transistor RN2402		R521	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B--472J
TR508	269 0054 901	Transistor DTC144EK		R522	247 0006 920	Carbon chip 330ohm 1/10W	RM73B--331J
TR509,510	269 0066 902	Transistor DTC323TK		R523	247 0007 961	Carbon chip 1.2kohm 1/10W	RM73B--122J
TR511	269 0086 908	Transistor DTA114TK		R524	247 0012 927	Carbon chip 100kohm 1/10W	RM73B--104J
TR801~804	273 0253 918	Transistor 2SC2878(A/B)		R525	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J
TR809~814	273 0253 918	Transistor 2SC2878(A/B)		R526	247 0009 927	Carbon chip 5.6kohm 1/10W	RM73B--562J
TR815~818	271 0094 919	Transistor 2SA970(BL)		R527~529	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J
TR819,820	273 0281 906	Transistor 2SC2705(O)/(Y)		R531,532	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
TR821,822	273 0253 918	Transistor 2SC2878(A/B)		R533	247 0010 929	Carbon chip 15kohm 1/10W	RM73B--153J
TR823~826	271 0094 919	Transistor 2SA970(BL)		R534	247 0005 921	Carbon chip 120ohm 1/10W	RM73B--121J
TR827,828	273 0281 906	Transistor 2SC2705(O)/(Y)		R535	247 0010 945	Carbon chip 18kohm 1/10W	RM73B--183J
TR829	273 0253 918	Transistor 2SC2878(A/B)		R535	247 0011 928	Carbon chip 39kohm 1/10W	RM73B--393J
TR830,831	271 0094 919	Transistor 2SA970(BL)		R536	247 0008 944	Carbon chip 2.7kohm 1/10W	RM73B--272J
TR832	273 0281 906	Transistor 2SC2705(O)/(Y)		R536	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
TR911	269 0082 902	Transistor DTC114EK		R537	247 0011 986	Carbon chip 68kohm 1/10W	RM73B--683J
TR917	273 0429 904	Transistor 2SC3311A		R538	247 0009 943	Carbon chip 6.8kohm 1/10W	RM73B--682J
TR918~920	271 0262 000	Transistor 2SA1670(O/P/Y)		R539	247 0009 927	Carbon chip 5.6kohm 1/10W	RM73B--562J
D501	276 0432 903	Diode 1SS270A		R540,541	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
D503~505	276 0432 903	Diode 1SS270A		R542,543	247 0008 960	Carbon chip 3.3kohm 1/10W	RM73B--332J
D911~913	276 0432 903	Diode 1SS270A		R544,545	247 0012 969	Carbon chip 150kohm 1/10W	RM73B--154J
D914,915	276 0704 903	Diode 1SR35-400A		R544,545	247 0012 927	Carbon chip 100kohm 1/10W	RM73B--104J
D917~921	276 0704 903	Diode 1SR35-400A		R546	247 0011 928	Carbon chip 39kohm 1/10W	RM73B--393J
D922	276 0305 001	Diode S4VB20		R547	247 0012 927	Carbon chip 100kohm 1/10W	RM73B--104J
D924	276 0704 903	Diode 1SR35-400A		R548	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
ZD917,918	276 0637 902	Zener diode MTZJ6.2A		R549	247 0012 927	Carbon chip 100kohm 1/10W	RM73B--104J
ZD502	276 0644 937	Zener diode MTZJ9.1A		R550	247 0009 927	Carbon chip 5.6kohm 1/10W	RM73B--562J
LD901	393 9408 903	LED SEL-4214S		R551	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
PT901	279 0034 054	Posistor PTH9M04BC222TS2F333					

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
R553,554	247 0008 960	Carbon chip 3.3kohm 1/10W	RM73B--332J	C518	257 0010 984	Ceramic chip 0.047μF/50V	CK73B1H473K
R555,556	247 0008 960	Carbon chip 3.3kohm 1/10W	RM73B--332J for E2	C519	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J for E2
R555,556	247 0009 927	Carbon chip 5.6kohm 1/10W	RM73B--562J for E3,EU,E1,E1C,E1H,E3T	C520	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J
R569	247 0009 927	Carbon chip 5.6kohm 1/10W	RM73B--562J for E2	C521~523	257 0010 900	Ceramic chip 0.01μF/50V	CK73B1H103K
R570	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J for E2	C524	254 4524 930	Electrolytic 0.47μF/50V	CE04W1HR47M(SMG/RE3)
R571~574	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K	C525	254 4524 985	Electrolytic 10μF/50V	CE04W1H00M(SMG/RE3)
R575,576	247 0012 998	Carbon chip 200kohm 1/10W	RM73B--204J for E2	C526	257 0010 942	Ceramic chip 0.022μF/50V	CK73B1H223K
R575,576	247 0012 943	Carbon chip 120kohm 1/10W	RM73B--124J for E3,EU,E1,E1C,E1H,E3T	C527	254 4524 943	Electrolytic 1μF/50V	CE04W1H010M(SMG/RE3) for E3,EU
R577	247 0010 961	Carbon chip 22kohm 1/10W	RM73B--223J	C528	254 4538 939	Electrolytic 47μF/16V	CE04W1C470M(SMG/RE3)
R578	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K	C529	254 4524 943	Electrolytic 1μF/50V	CE04W1H010M(SMG/RE3)
R579~581	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K for E3,EU,E1,E1C,E1H,E3T	C530	254 4524 914	Electrolytic 0.22μF/50V	CE04W1HR22M(SMG/RE3)
R582	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K	C531	254 4524 943	Electrolytic 1μF/50V	CE04W1H010M(SMG/RE3)
R595	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K	C532	257 0010 900	Ceramic chip 0.01μF/50V	CK73B1H103K
R713,714	244 2052 960	Metal oxide 220ohm 1W	RS14B3A221JNBS(S)	C533	256 1058 939	Metallized 0.047μF/50V	CF93A1H473J(JL)
R861,862	241 2376 964	Carbon film 47ohm 1/4W(NB)	RD14B2E470JNBS	C534	256 1058 942	Metallized 0.056μF/50V	CF93A1H563J(JL)
R887,888	241 2376 964	Carbon film 47ohm 1/4W(NB)	RD14B2E470JNBS	C535	254 3053 910	Electrolytic 22μF/16V	CE04D1C220MBP
R901	241 2376 964	Carbon film 47ohm 1/4W(NB)	RD14B2E470JNBS	C536	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J for E3,EU,E1,E1C,E1H,E3T
R911	247 0006 917	Carbon chip 300ohm 1/10W	RM73B--301J	C537	254 4538 913	Electrolytic 22μF/16V	CE04W1C220M(SMG/RE3) for E2
R912	247 0006 975	Carbon chip 510ohm 1/10W	RM73B--511J	C538	254 4538 913	Electrolytic 22μF/16V	CE04W1C220M(SMG/RE3)
R913	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J	C539,540	257 0006 972	Ceramic chip 750pF/50V	CC73SL1H751J for E3,EU
R914	247 0007 903	Carbon chip 680ohm 1/10W	RM73B--681J	C539,540	257 0005 986	Ceramic chip 330pF/50V	CC73SL1H331J for E2
R917	247 0005 976	Carbon chip 200ohm 1/10W	RM73B--201J	C539,540	257 0006 930	Ceramic chip 510pF/50V	CC73SL1H511J for E1,E1C,E1H,E3T
R941,942	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J	C541	254 4524 956	Electrolytic 2.2μF/50V	CE04W1H2R2M(SMG/RE3)
R943,944	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B--472J	C544	257 0010 900	Ceramic chip 0.01μF/50V	CK73B1H103K
R949~951	241 2376 919	Carbon film 30ohm 1/4W(NB)	RD14B2E300JNBS	C545,546	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)
R963	241 2375 907	Carbon film 10ohm 1/4W(NB)	RD14B2E100JNBS	C557,558	257 0002 963	Ceramic chip 15pF/50V	CC73SL1H150J
VR501	211 6132 925	Semi fixed resistor 10ohm	V06PB103	C559	254 4524 943	Electrolytic 1μF/50V	CE04W1H010M(SMG/RE3)
VR502	211 6132 983	Semi fixed resistor 100ohm	V06PB104	C561	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z
<b>CAPACITORS GROUP</b>				C562	257 0014 935	Ceramic chip 0.1μF/25V	CK73F1E104Z
C501,502	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K	C570	254 4538 900	Electrolytic 10μF/16V	CE04W1C100M(SMG/RE3)
C503~305	257 0010 900	Ceramic chip 0.01μF/50V	CK73B1H103K	C571	254 4524 943	Electrolytic 1μF/50V	CE04W1H010M(SMG/RE3)
C507,308	257 0010 900	Ceramic chip 0.01μF/50V	CK73B1H103K	C574	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J
C509	257 0002 947	Ceramic chip 12pF/50V	CC73SL1H120J	C575	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z
C510	257 0010 900	Ceramic chip 0.01μF/50V	CK73B1H103K	C576	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K for E1,E1H
C511	254 4538 939	Electrolytic 47μF/16V	CE04W1C470M(SMG/RE3)	C721,722	255 1264 908	Mylar film 1000pF/50V	CQ93M1H102J(B)
C512	257 0010 900	Ceramic chip 0.01μF/50V	CK73B1H103K	C723	253 9039 906	Ceramic 0.1μF/25V	CK45=E104Z
C513	254 4524 943	Electrolytic 1μF/50V	CE04W1H010M(SMG/RE3)	C813,814	254 4538 913	Electrolytic 22μF/16V	CE04W1C220M(SMG/RE3)
C514	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z	C817~820	254 4538 913	Electrolytic 22μF/16V	CE04W1C220M(SMG/RE3)
C515	254 4538 939	Electrolytic 47μF/16V	CE04W1C470M(SMG/RE3)	C823,824	254 4538 913	Electrolytic 22μF/16V	CE04W1C220M(SMG/RE3)
C516,517	257 0010 900	Ceramic chip 0.01μF/50V	CK73B1H103K				

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks	Q'ty
C825,826	254 4538 942	Electrolytic 100μF/16V	CE04W1C101M(SMG/RE3) for E2	CF501	261 0146 006	Ceramic filter FMCFSK107M2-A	for E2	1
C825,826	254 4538 913	Electrolytic 22μF/16V	CE04W1C220M(SMG/RE3) for E3,EU,E1,E1C,E1H,E3T	CF501	261 0135 907	Ceramic filter MA8	for E3,EU,E1, E1C,E1H,E3T	1
C829,830	254 4524 985	Electrolytic 10μF/50V	CE04W1H100M(SMG/RE3)	CF502	261 0146 006	Ceramic filter FMCFSK107M2-A	for E2	1
C831~834	253 1179 945	Ceramic 220pF/50V	CK45B1H221K	CF502	261 0136 906	Ceramic filter MS2G	for E3,EU,E1, E1C,E1H,E3T	1
C835,836	254 4538 955	Electrolytic 220μF/16V	CE04W1C221M(SMG/RE3)	CF503	261 0079 005	Ceramic resonator	CSB456F11	1
			for E2	CF504	261 0031 001	Ceramic filter BFU450C4		1
C835,836	254 4538 939	Electrolytic 47μF/16V	CE04W1C470M(SMG/RE3) for E3,EU,E1,E1C,E1H,E3T	CF505	261 0116 007	Ceramic filter SFU450B3		1
C837,838	255 1264 966	Mylar film 3300pF/50V	CQ93M1H332J(B)	CW054~057	205 0885 008	5P connector socket (TUC-P)		4
C839,840	253 4482 901	Ceramic 33pF/500V	CC45SL2H330J	CW065	205 0942 019	6P connector socket (TUC-P)		1
C841,842	254 4538 913	Electrolytic 22μF/16V	CE04W1C220M(SMG/RE3)	CW073	205 1081 018	7P FJ connector base		1
C845,846	254 4524 985	Electrolytic 10μF/50V	CE04W1H100M(SMG/RE3)	CW074	205 0942 022	7P connector socket (TUC-P)		1
C847~850	253 1179 945	Ceramic 220pF/50V	CK45B1H221K	CW075,076	205 1081 018	7P FJ connector base		1
C851,852	254 4538 939	Electrolytic 47μF/16V	CE04W1C470M(SMG/RE3)	CW117	205 0885 066	11P connector socket (TUC-P)		1
C853,854	255 1264 966	Mylar film 3300pF/50V	CQ93M1H332J(B)	CW151	205 0885 040	15P connector socket (TUC-P)		1
C855,856	253 4482 901	Ceramic 33pF/500V	CC45SL2H330J	CX037	205 0343 032	3P connector base(KR-PH)	for E3,EU	1
C859	254 4524 985	Electrolytic 10μF/50V	CE04W1H100M(SMG/RE3)	CX087	205 1120 089	8P connector base(5267)		1
C860	254 4538 913	Electrolytic 22μF/16V	CE04W1C220M(SMG/RE3)	CX101	205 1081 005	10P FJ connector base		1
C862	254 4524 985	Electrolytic 10μF/50V	CE04W1H100M(SMG/RE3)	CX156	205 0884 041	15P connector base (TUC-P)		1
C863,864	253 1179 945	Ceramic 220pF/50V	CK45B1H221K	CY031	205 0343 032	3P connector base(KR-PH)		1
C865	254 4538 939	Electrolytic 47μF/16V	CE04W1C470M(SMG/RE3)	CY037	205 0343 032	3P connector base(KR-PH)	for E3,EU	1
C866	255 1264 966	Mylar film 3300pF/50V	CQ93M1H332J(B)	△ F11~14	206 1039 076	Fuse 2.5A	for E3,EU,E3T	4
C867	253 4482 901	Ceramic 33pF/500V	CC45SL2H330J	△ F11~14	206 1015 032	Fuse 2.5A	for E2,E1,E1C,E1H	4
C914,915	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103Z	FB501	235 0049 900	Beads inductor		1
C937	254 4538 939	Electrolytic 47μF/16V	CE04W1C470M(SMG/RE3)	FF901~904	202 0040 909	Fuse clip		4
C938	253 9039 906	Ceramic 0.1μF/25V	CK45=1E104Z	FH901~904	202 0040 909	Fuse clip		4
C939~941	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103Z	JK501	205 0847 004	3P antenna terminal (PAL/F)		1
C943~944	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103Z	JK702	204 8264 071	Headphone jack (GOLD)	for E1,E1H	1
C946	254 4541 939	Electrolytic 47μF/25V	CE04W1E470M(SMG/RE3)	JK702	204 8264 013	Headphone jack (NI)	for E3,EU,E2, E1C,E3T	1
C947~950	254 4541 939	Electrolytic 47μF/25V	CE04W1E470M(SMG/RE3)	L504	235 0060 905	Inductor 2.2μH		1
C951~952	254 4524 943	Electrolytic 1μF/50V	CE04W1H010M(SMG/RE3)	LF501	232 9010 009	Antibirdie filter	for E2	1
C954,955	254 4524 943	Electrolytic 1μF/50V	CE04W1H010M(SMG/RE3)	LF503,504	232 0085 004	LPF	for E2	2
C957,958	254 4406 702	Electrolytic 3300μF/16V	CE04W1C332M(SMG)	S901	212 0373 000	Rotary encoder EC16B		1
C959	254 4524 943	Electrolytic 1μF/50V	CE04W1H010M(SMG/RE3)	S902,903	212 5611 903	Tact switch		2
C960,961	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103Z	S905	212 5611 903	Tact switch		1
C962	254 4403 705	Electrolytic 6800μF/25V	CE04W1E682M(SMG)	SW901	212 0420 005	1P push switch	for E3,EU	1
C963	254 4403 718	Electrolytic 1000μF/25V	CE04W1E102M(SMG)					
C965~968	256 1058 971	Metallized 0.1μF/50V	CF93A1H104J(JL)					
C969,970	254 4524 943	Electrolytic 1μF/50V	CE04W1H010M(SMG/RE3)					
C975,976	254 4524 943	Electrolytic 1μF/50V	CE04W1H010M(SMG/RE3)					

## 1U-3236 VOLTAGE SEL. UNIT ASS'Y

Ref. No.	Part No.	Part Name	Remarks	Q'ty
T501	231 2096 001	MW ant.-osc. coil		1
T502	231 2085 009	FM DET trans.		1
T503	231 1138 009	AM IFT		1
TP102	205 0133 035	3 P NH connector base		1
W712	203 0526 002	1P contact Ass'y		1
W726	205 1034 010	M3 Screw terminal		1
XL503	399 0075 003	Crystal 7.2MHz		1
S501	212 0408 001	Slide switch	for E1,E1H	1
	203 0356 010	Earth wire		1
	415 0309 026	P.V.C. tube (L=20)		2
	513 2585 074	Fuse label	for E2,E1,E1C,E1H	4

Ref. No.	Part No.	Part Name	Remarks	Q'ty
<b>OTHER PARTS GROUP</b>				
CX042	205 0581 030	4P VH connector base	for E1,E1H	1
▲ F901	206 1015 032	Fuse 2.5A	for E1,E1H	1
FF901	202 0040 909	Fuse clip	for E1,E1H	1
FH901	202 0040 909	Fuse clip	for E1,E1H	1
▲ S801	212 4810 006	Slide switch	for E1,E1H	1
	513 2585 074	Fuse label	for E1,E1H	1

## PARTS LIST OF EXPLODED VIEW

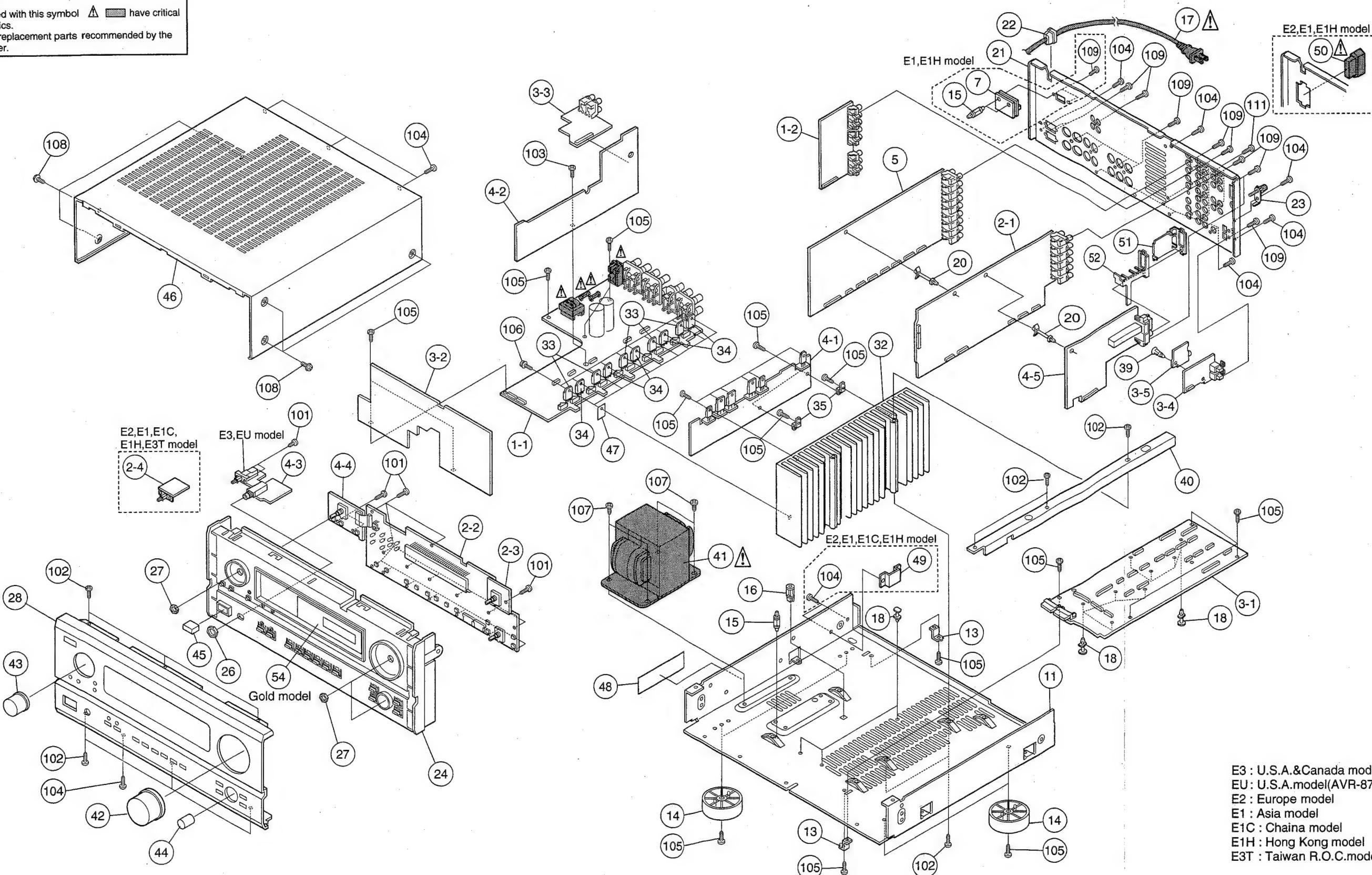
Note: The symbols in the column "Remarks" indicate the following destinations.  
 E3: U.S.A. & Canada model      E1C: China model  
 EU: U.S.A. model (AVR-87)      E1H: Hong Kong model  
 E2: Europe model      E3T: Taiwan R.O.C. model  
 E1: Asia model

Ref. No.	Part No.	Part Name	Remarks	Q'ty	Ref. No.	Part No.	Part Name	Remarks	Q'ty
1	Note	Power unit Ass'y		1	46	102 0603 033	Top cover	Gold model	1
1-1		Power unit			47	—	Insulating sheet		10
1-2		C.video unit			48	513 3337 001	Caution label	for E3,EU	1
2	Note	EXT.in unit Ass'y		1	49	412 2955 107	Side bracket	for E2,E1,E1C,E1H	1
2-1		EXT.in volume unit			50	203 3942 007	AC outlet	for E2,E1,E1H	1
2-2		Display unit			51	412 4556 009	Earth plate(B)		1
2-3		Volume unit			52	412 4557 008	Earth plate(A)		1
2-4		Power switch unit			★ 53	Note	Rating label/sheet		1
3	Note	Control unit Ass'y		1	54	146 2151 004	Blind sheet	Gold model	1
3-1		Control unit			★ 55	203 4871 067	3P KR-KR ribbon wire 175	CN031 for CX,CY031 H/P	1
3-2		Connect unit			★ 56	203 4871 038	3P KR-KR ribbon wire 100	CN037 for CX,CY037 P/SW	1
3-3		Preout unit			★ 57	445 8004 007	Wire clamer	for SP terminal	3
3-4		Digital in-1 unit			★ 58	477 0096 007	Push rivet	for E2,E1,E1C,E1H	14
3-5		Digital in-2 unit			★ 59	515 8030 040	Preset label	for AC cord	1
4	Note	Regulator unit Ass'y		1	★ 60	Note	Caution label	for E1,E1H	1
4-1		Regulator unit			★ 61	513 2481 000	Serial no.sheet	for E3T	1
4-2		Amp. unit							
4-3		H/P & P.SW unit							
4-4		Front unit							
4-5		Tuner unit							
5	Note	Audio/DSP unit Ass'y		1					
7	1U-3236A	Voltage SEL. unit Ass'y	for E1,E1H	1					
11	411 1372 526	Main chassis		1					
13	412 4210 002	Bracket		2					
14	104 0194 205	Foot Ass'y		4					
15	449 0133 017	P.W.B. holder		Note					
16	412 3548 005	P.W.B.catcher		1					
17	Note	AC cord		1					
18	412 2814 028	Card spacer (L=10)			101	473 7500 015	Screw 3×8 CBTS(P)-Z		19
20	409 0052 019	Holder (A)		2	102	473 7501 001	Screw 3×10 CBTS(P)-Z		10
21	Note	Back panel		1	103	473 7501 030	Screw 3×20 CBTS(P)-Z		1
22	445 0056 008	Cord bush		1	104	473 7015 018	Screw 3×8 CBTS(S)-B		Note
23	205 1116 006	Terminal Ass'y		1	105	473 7005 002	Screw 3×10 CBTS(S)-Z		28
24	146 2139 220	Inner panel	Black model	1	106	473 8007 009	Cup screw 3×12		10
24	146 2139 233	Inner panel	Gold model	1	107	473 7004 016	Screw 4×6 CBTS(S)-Z		4
26	475 6124 003	12 Nut		1	108	473 8064 000	Screw 4×8 CBTS(B)-B-3P	Black model	6
27	—	9 Nut		3	108	473 8064 013	Screw 4×8 CBTS(B)-N-3P	Gold model	6
28	Note	Front panel Ass'y		1	109	477 0064 107	Fixing screw		Note
32	417 0588 005	Radiator		1	111	473 7006 056	Screw 3×20 CBTS(S)-B		1
33	273 0389 031	Transistor 2SC3855 LB(O/P/Y)(Z)	TR515,516,535,536,548	5					
34	271 0240 035	Transistor 2SA1491 LB(O/P/Y)(Z)	TR517,518,537,538,549	5					
35	412 4127 001	P.W.B.bracket(B)		2					
39	412 2741 007	P.W.B.holder (H=8)		1					
40	412 4296 107	Radiator bracket		1					
41	Note	Power trans. (Main)		1					
42	112 0844 006	Knob (M) Ass'y	Black model	1					
42	112 0844 019	Knob (M) Ass'y	Gold model	1					
43	112 0846 004	Knob (F) Ass'y	Black model	1					
43	112 0846 017	Knob (F) Ass'y	Gold model	1					
44	112 0848 002	Knob (S) Ass'y	Black model	1					
44	112 0848 015	Knob (S) Ass'y	Gold model	1					
45	113 1873 105	Push knob	Black model	1					
45	113 1873 118	Push knob	Gold model	1					
46	102 0603 020	Top cover	Black model	1					

## EXPLODED VIEW

1 2 3 4 5 6 7 8

**WARNING:**  
 Parts marked with this symbol have critical characteristics.  
 Use ONLY replacement parts recommended by the manufacturer.



E3 : U.S.A.&Canada model  
 EU : U.S.A.model(AVR-87)  
 E2 : Europe model  
 E1 : Asia model  
 E1C : Chaina model  
 E1H : Hong Kong model  
 E3T : Taiwan R.O.C.model

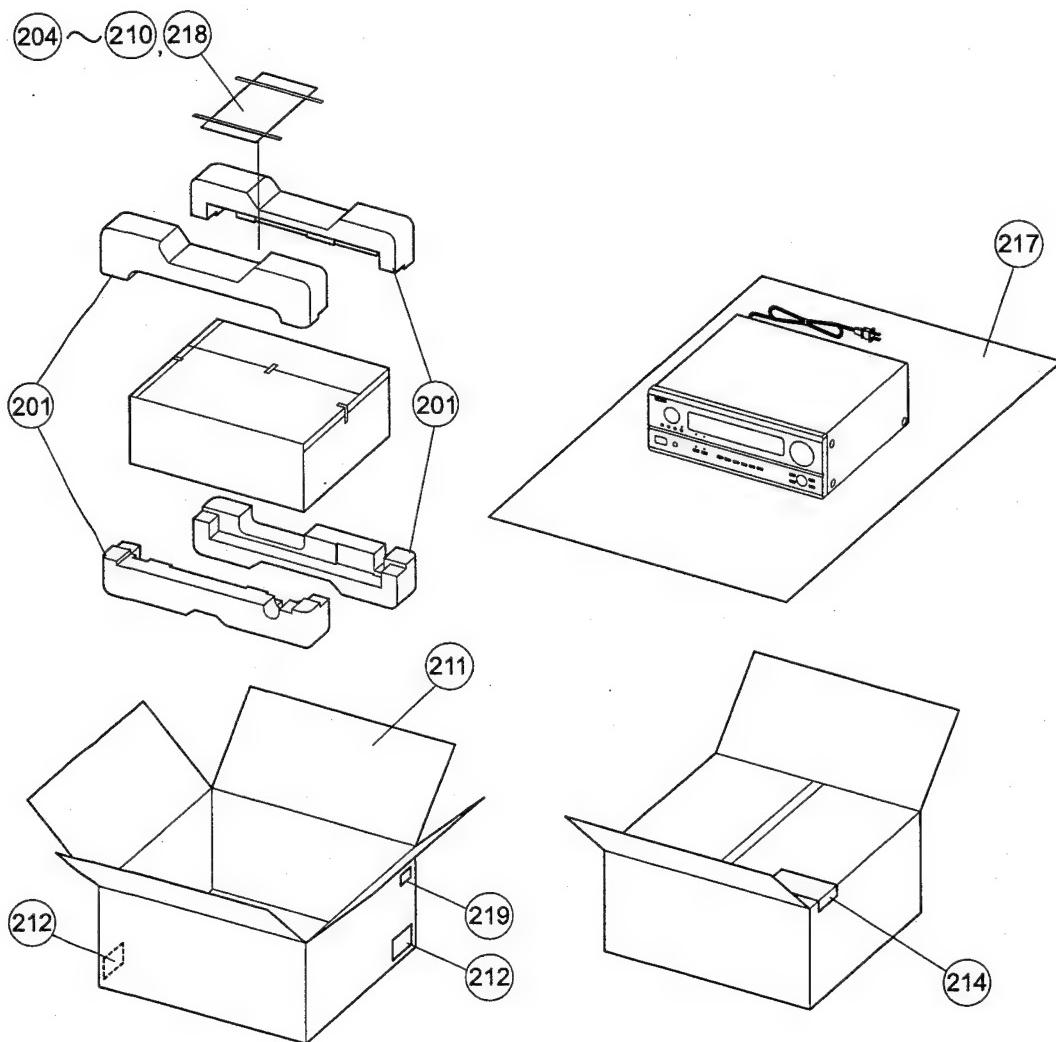
## ADDENDUM PARTS LIST OF EXPLODED VIEW

Ref. No.	Part Name	U.S.A. & Canada Model		U.S.A. Model (AVR-87)		Europe Model		Asia Model		China Model		Hong Kong Model		Taiwan R.O.C. Model		Remarks
		Part No.	Q'ty	Part No.	Q'ty	Part No.	Q'ty	Part No.	Q'ty	Part No.	Q'ty	Part No.	Q'ty	Part No.	Q'ty	
1	Power unit Ass'y	1U-3232H		1U-3232H		1U-3232K		1U-3232L		1U-3232M		1U-3232P		1U-3232J		
1-1	Power unit															
1-2	C.video unit															
2	EXT.in unit Ass'y	1U-3233H		1U-3233H		1U-3233K		1U-3233L		1U-3233M		1U-3233L		1U-3233J		
2-1	EXT.in volume unit															
2-2	Display unit															
2-3	Volume unit															
2-4	Power switch unit															
3	Control unit Ass'y	1U-3234H		1U-3234H		1U-3234K		1U-3234L		1U-3234M		1U-3234L		1U-3234J		
3-1	Control unit															
3-2	Connect unit															
3-3	Preout unit															
3-4	Digital in-1 unit															
3-5	Digital in-2 unit															
4	Regulator unit Ass'y	1U-3235H		1U-3235H		1U-3235K		1U-3235L		1U-3235M		1U-3235L		1U-3235J		
4-1	Regulator unit															
4-2	Amp. unit															
4-3	H/P & P.SW unit															
4-4	Front unit															
4-5	Tuner unit															
5	Audio/DSP unit Ass'y	1U-3197H	1	1U-3197H	1	1U-3197K	1	1U-3197L	1	1U-3197M	3	1U-3197L	3	1U-3197J	1	
15	P.W.B. holder	449 0133 017	1	449 0133 017	1	449 0133 017	1	449 0133 017	3	449 0133 017	3	449 0133 017	3	449 0133 017	1	
17	AC cord	206 2160 009		206 2160 009		206 2089 106		206 2175 007		206 2174 008		206 2177 005		206 2160 009		
18	Card spacer (L=10)	412 2814 028	11	412 2814 028	11	412 2814 028	12	412 2814 028	11	412 2814 028	11	412 2814 028	11	412 2814 028	11	
21	Back panel	105 1316 289		105 1323 120		105 1323 104		105 1323 117		105 1323 188		105 1323 117		105 1323 162		
28	Front panel Ass'y(Black model)	144 2677 003		144 2677 016		144 2677 045		144 2677 029		144 2677 029		144 2677 029		144 2677 029		
28	Front panel Ass'y(Gold model)	—		—		144 2677 058		144 2677 032		144 2677 032		144 2677 032		144 2677 032		
41	Power trans. (Main)	233 6304 009		233 6304 009		233 6305 008		233 6306 007		233 6305 006		233 6306 007		233 6304 009		
53	Rating label(China)	—		—		—		—		513 3345 019		—		—		
53	Rating sheet(T)	—		—		—		—		—		—		513 2769 052		
60	Caution label	—		—		—		—		513 3343 008		—		513 2482 009		
<b>SCREWS &amp; NUTS</b>																
104	Screw 3X8 CBTS(S)-B	473 7015 018	10	473 7015 018	10	473 7015 018	12	473 7015 018	12	473 7015 018	12	473 7015 018	12	473 7015 018	10	
109	Fixing screw	477 0064 107	29	477 0064 107	29	477 0064 107	25	477 0064 107	29	477 0064 107	27	477 0064 107	29	477 0064 107	29	

## ADDENDUM PARTS LIST OF PACKING &amp; ACCESSORIES

Ref. No.	Part Name	U.S.A. & Canada Model		U.S.A. Model (AVR-87)		Europe Model		Asia Model		China Model		Hong Kong Model		Taiwan R.O.C. Model		Remarks
		Part No.	Q'ty	Part No.	Q'ty	Part No.	Q'ty	Part No.	Q'ty	Part No.	Q'ty	Part No.	Q'ty	Part No.	Q'ty	
205	Instruction manual	511 3497 000		511 3506 001		511 3524 009		511 3513 007		511 3514 006		511 3513 007		511 3513 007		
209	Remote control unit(RC-863)	399 0554 003		399 0554 003		—		399 0554 003		399 0554 003		399 0554 003		399 0554 003		
209	Remote control unit(RC-868)	—		—		399 0578 005		—		—		—		—		
211	Carton case	501 2052 009		501 2052 012		501 2052 009		501 2052 009		501 2052 009		501 2052 025		501 2052 009		

## PACKING VIEW



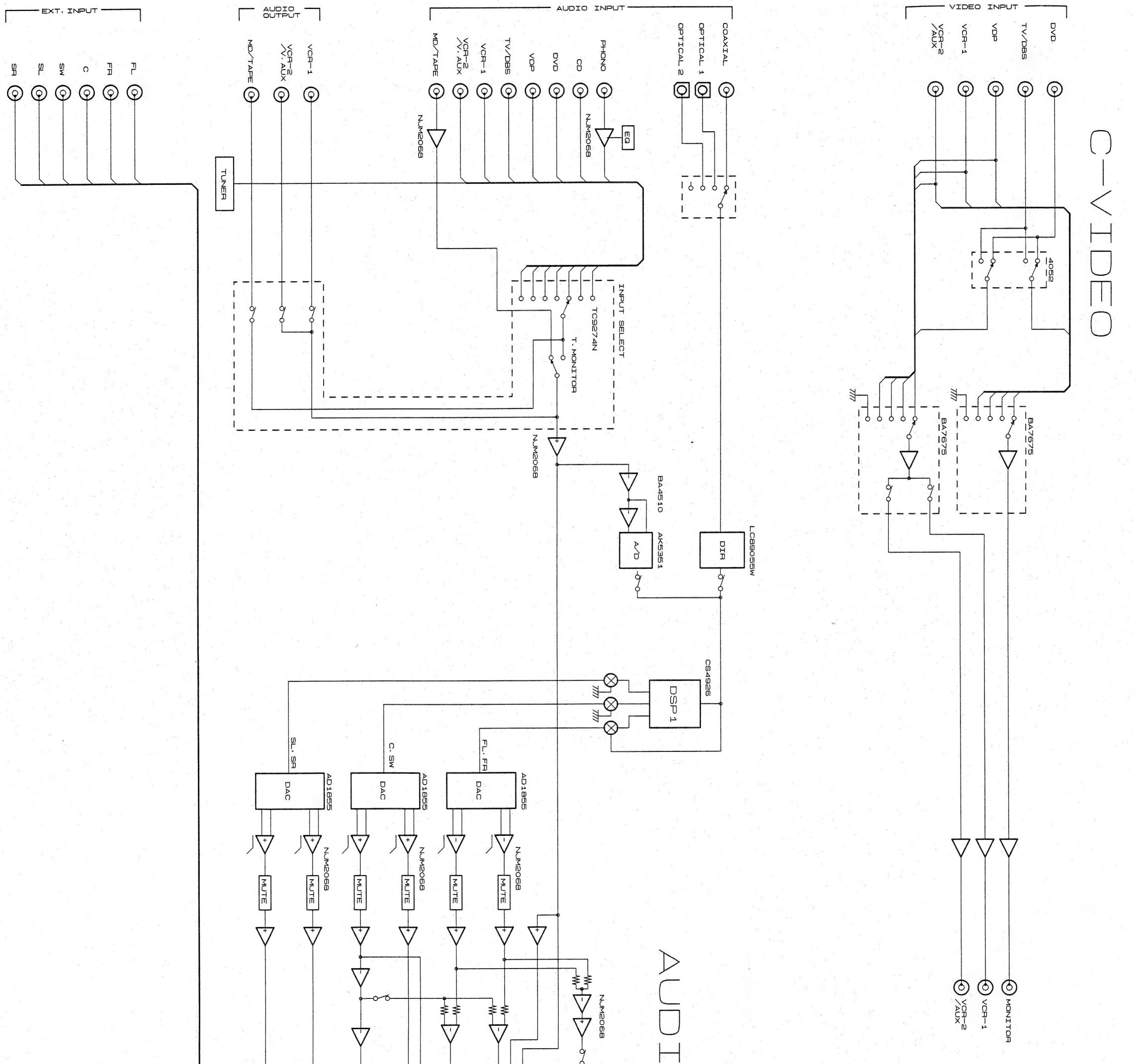
Note: The symbols in the column "Remarks" indicate the following destinations.  
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 EU: U.S.A. model (AVR-87)      E1H: Hong Kong model  
 E2: Europe model      E3T: Taiwan R.O.C. model  
 E1: Asia model

## PARTS LIST OF PACKING &amp; ACCESSORIES

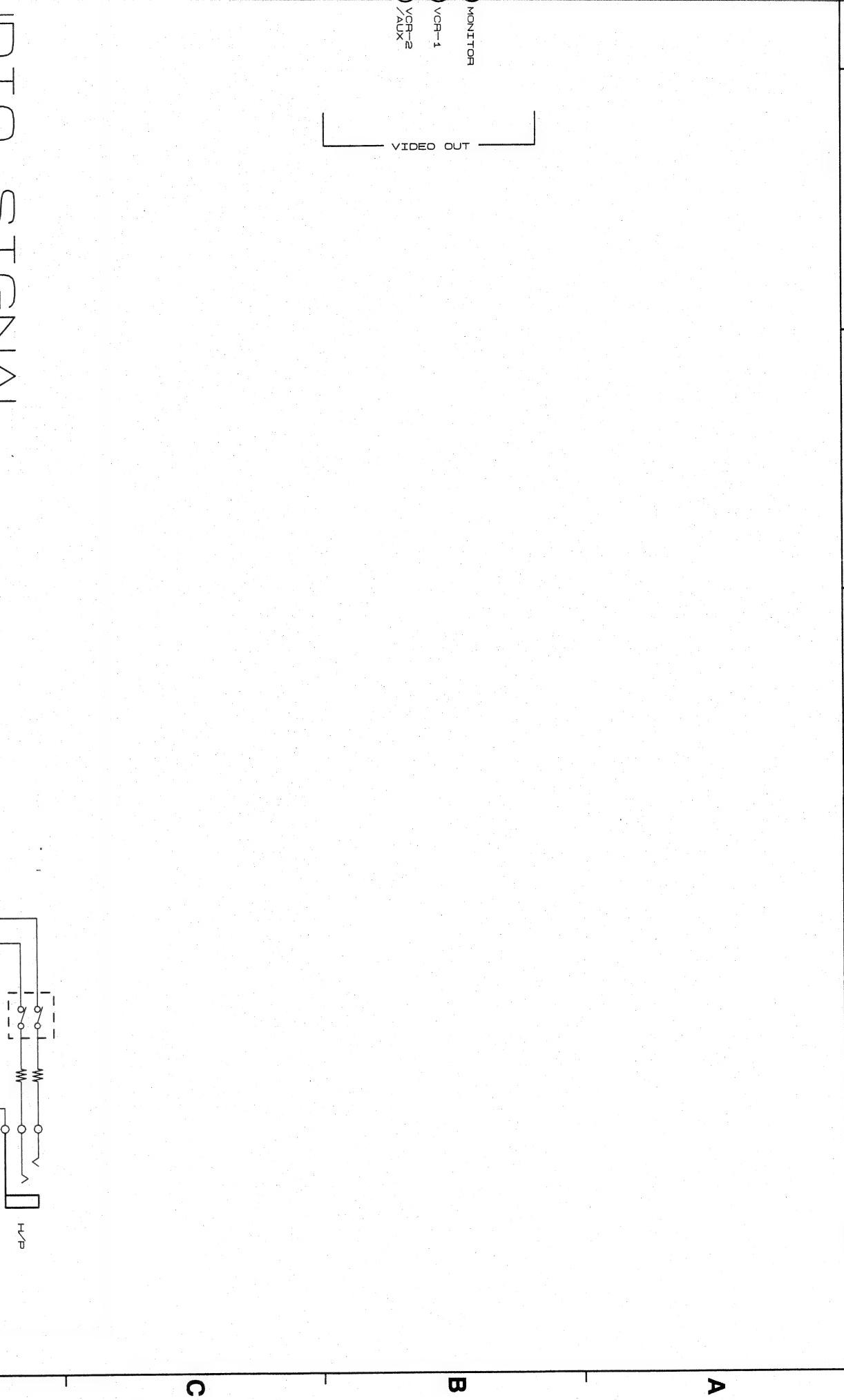
Ref. No.	Part No.	Part Name	Remarks	Q'ty	Ref. No.	Part No.	Part Name	Remarks	Q'ty
201	503 1330 003	Cushion Ass'y		1	211	Note	Carton case		1
★ 202	503 1333 000	Cushion	for E1H	1	212	513 1389 006	Control card		1
204	505 8006 019	Envelope		1	214	515 0690 307	DEL warranty home	for E3,EU	1
205	Note	Instruction manual		1	★ 215	513 9111 001	Color label (gold)	Gold model	2
206	231 0922 009	Loop antenna		1	217	504 0192 009	Cabinet sheet		1
207	395 0023 008	FM antenna Ass'y		1	218	—	Battery(R6P/AA×3)		1
208	529 0079 008	FM ant.adapter		1	219	513 3327 008	Bar code label	for E3,EU,E2	1
209	Note	Remote control unit		1	★ 220	513 3322 003	Label(RDS)	for E2	2
210	515 0671 708	S.S. list (EX)		1	★ 221	513 3195 036	KOLIN label(T)	for E3T	1

**MEMO:**

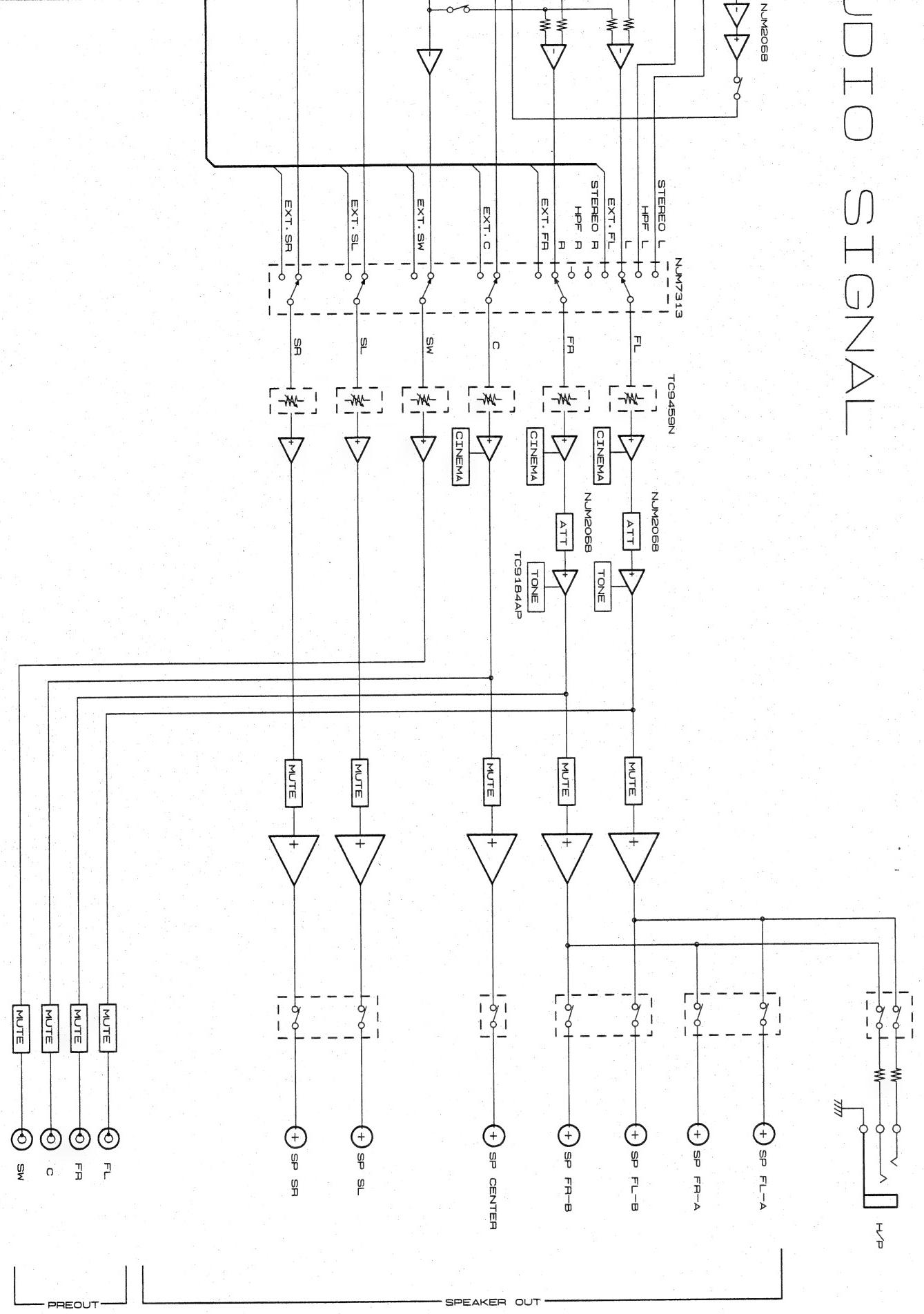
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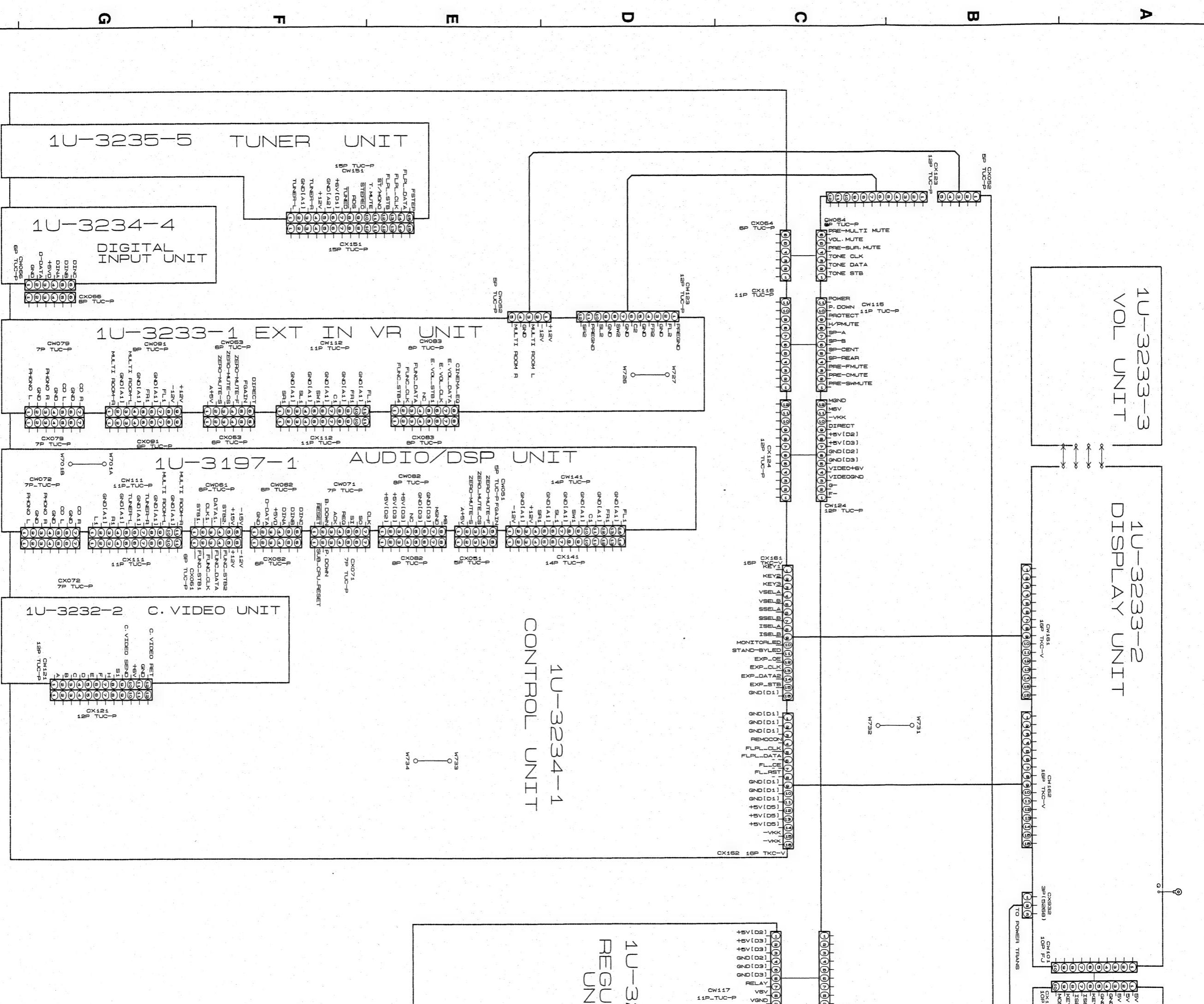


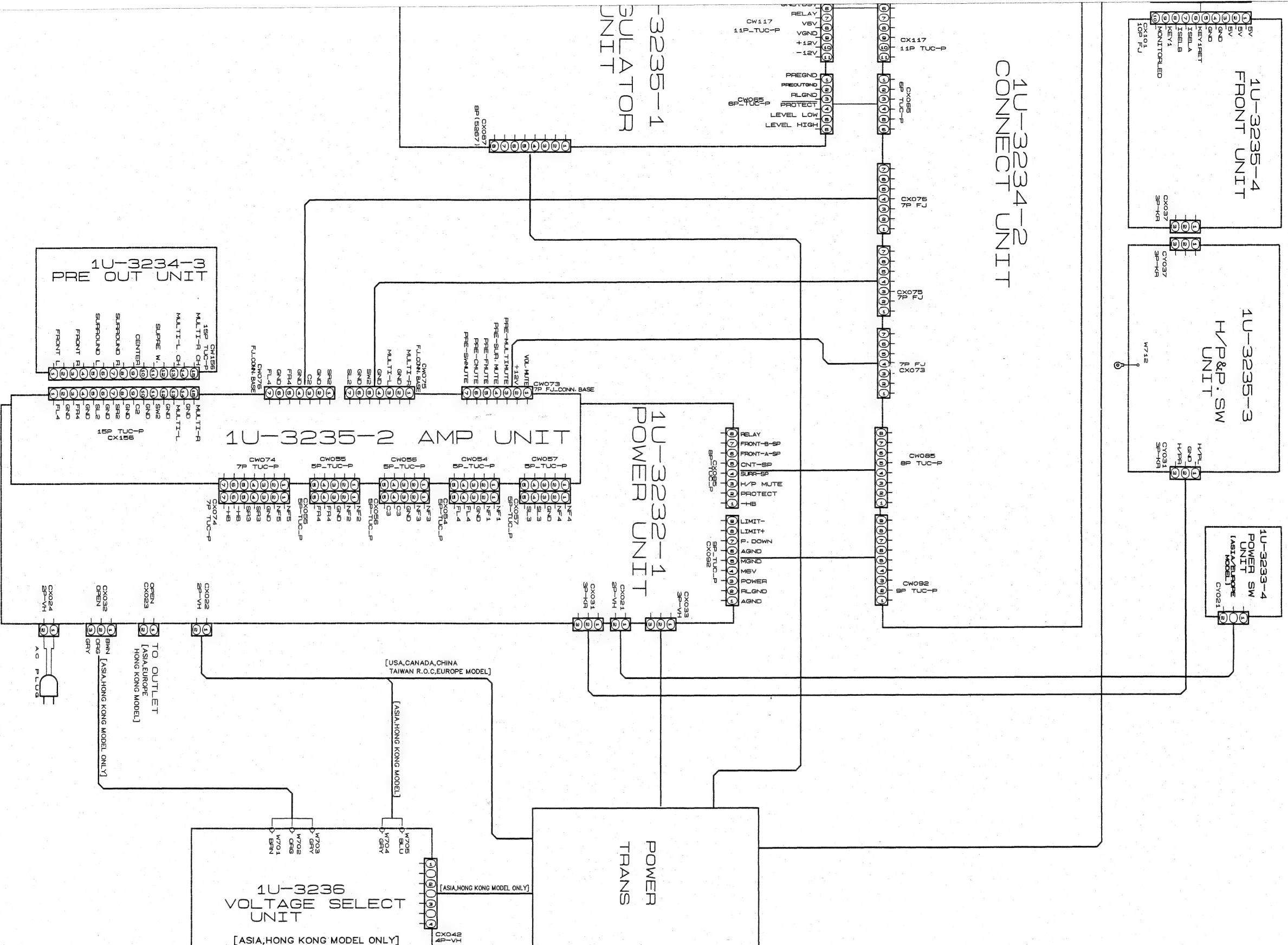
7 8 9 10 11



## AUDIO SIGNAL

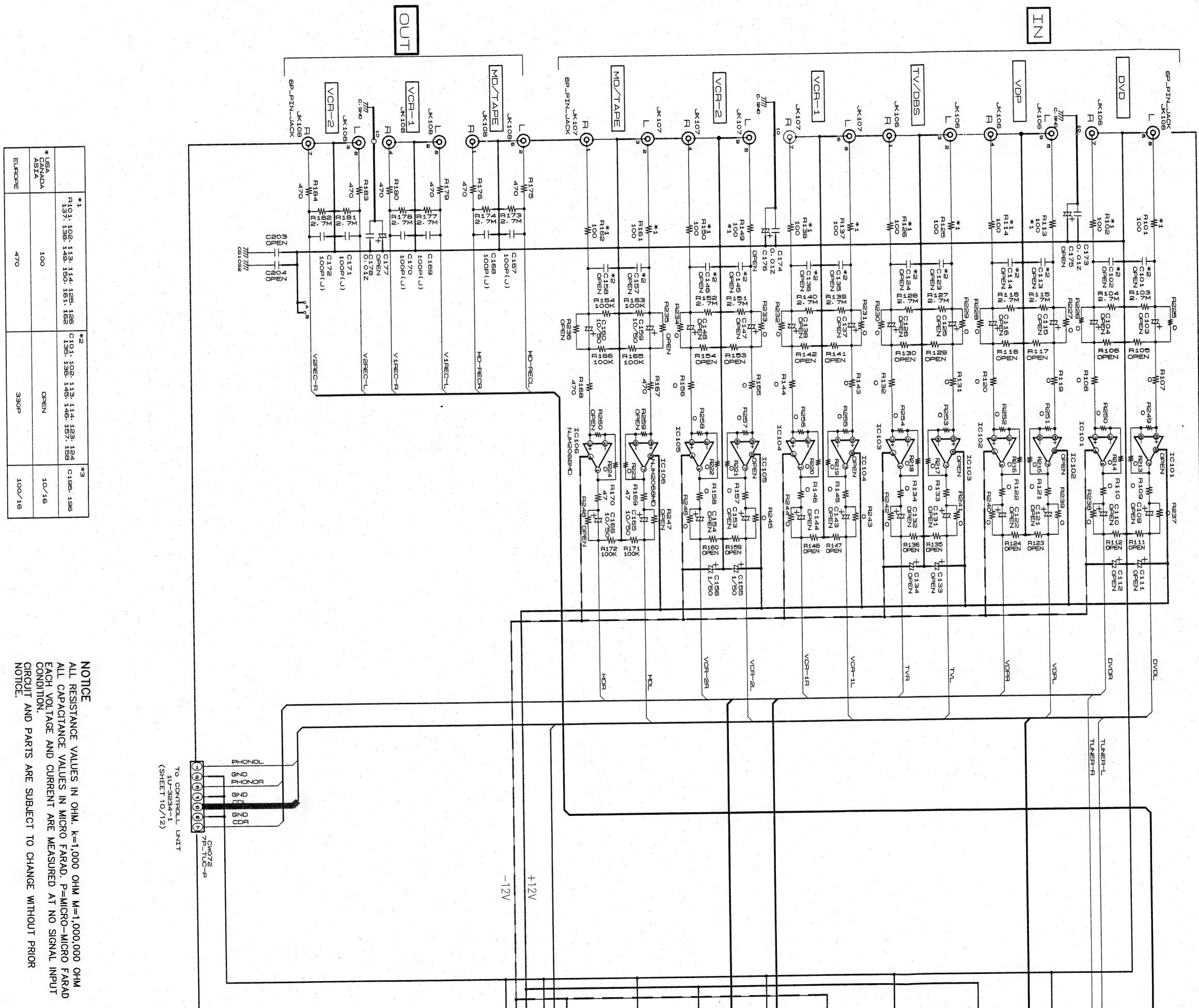




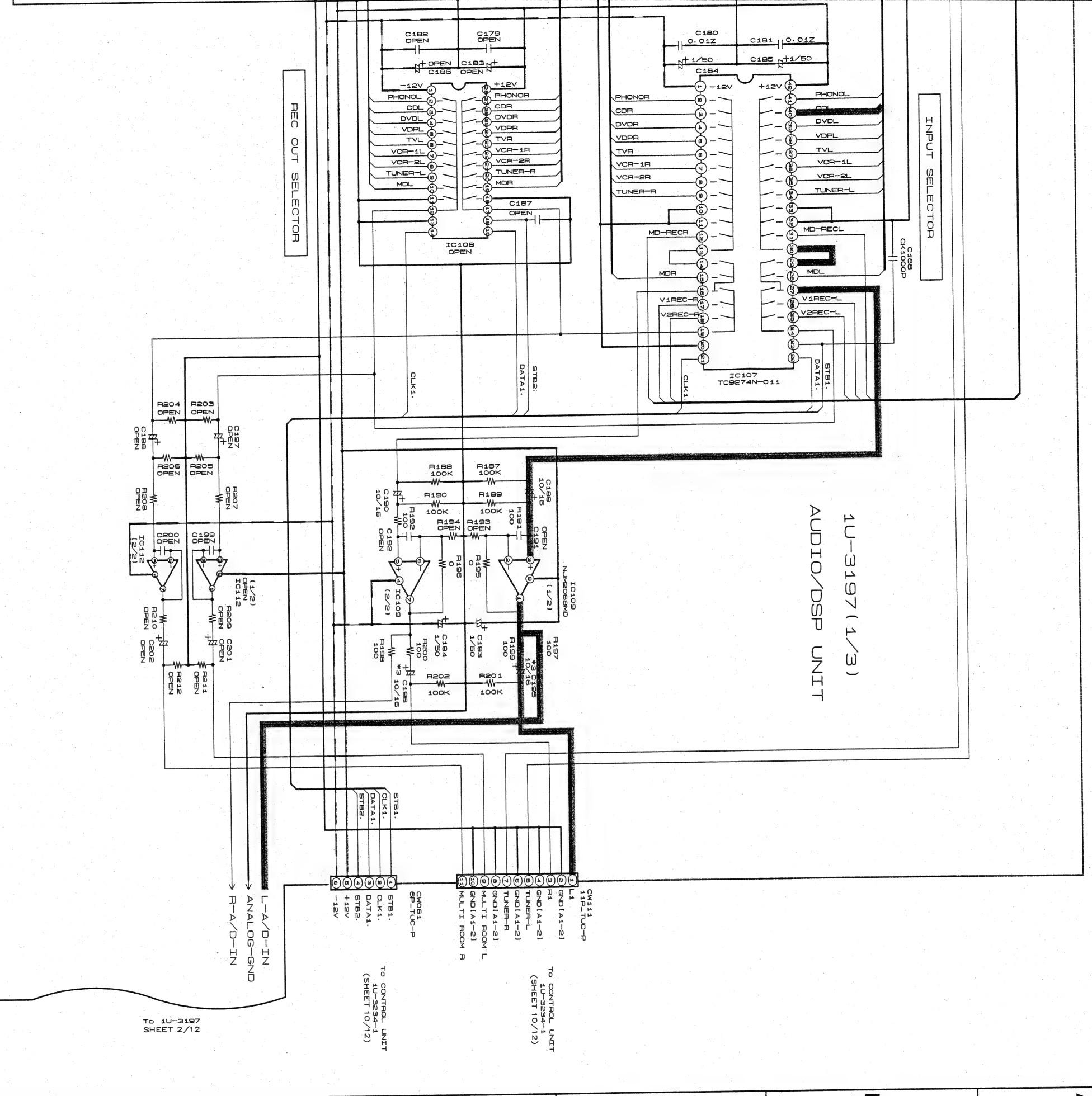


# SCHEMATIC DIAGRAMS (1/12)

1      2      3      4      5      6



1U-3197(1/3)  
AUDIO/DSP UNIT



-B LINE  
SIGNAL LINE

-B LINE  
SIGNAL

卷之三

1

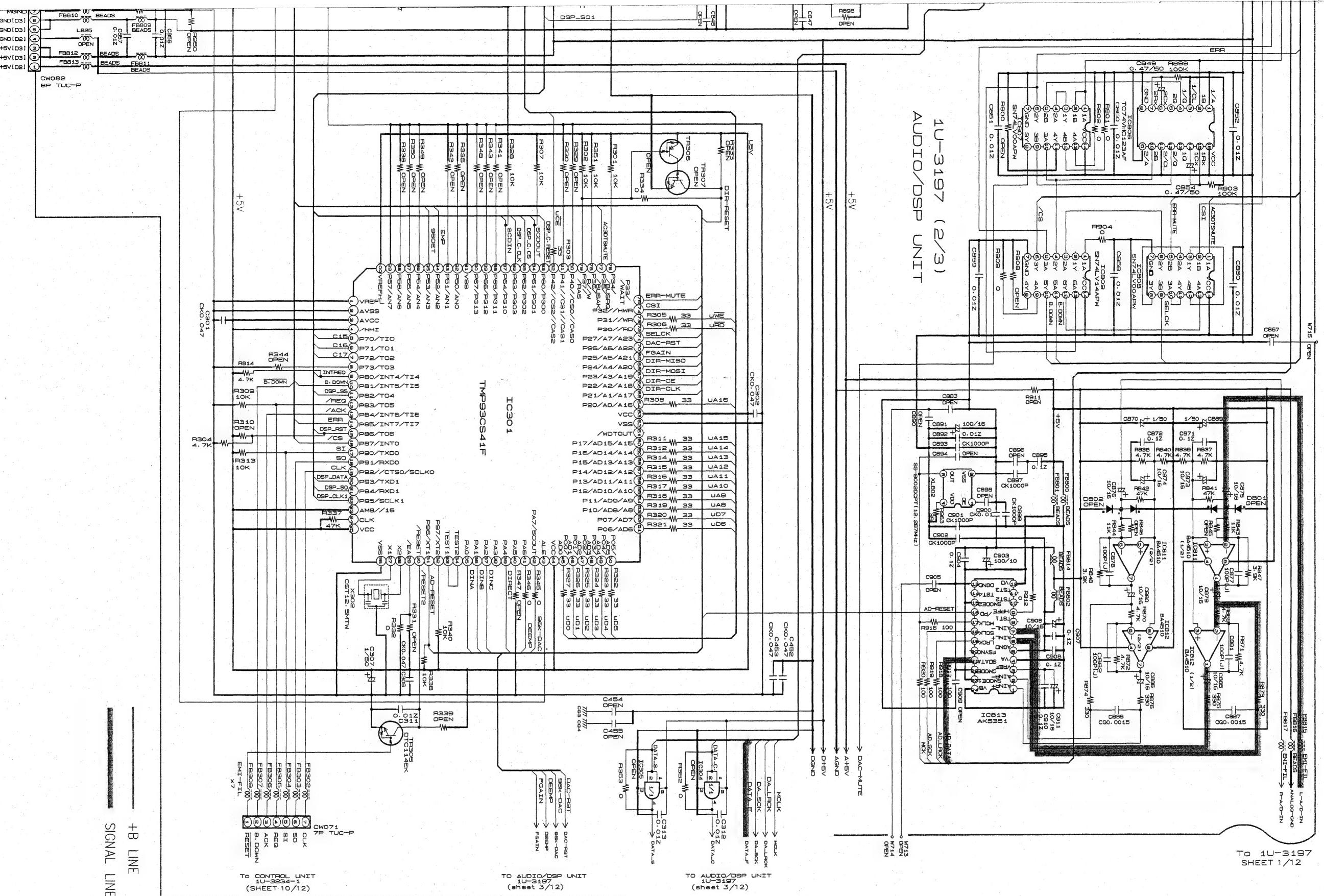
Parts marked with this symbol  have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

**WARNING:** Before returning the unit to the customer, make sure you make either (1) leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 millamps, or if the resistance from chassis to either end of the power cord is less than 460 kohms, the unit is defective.

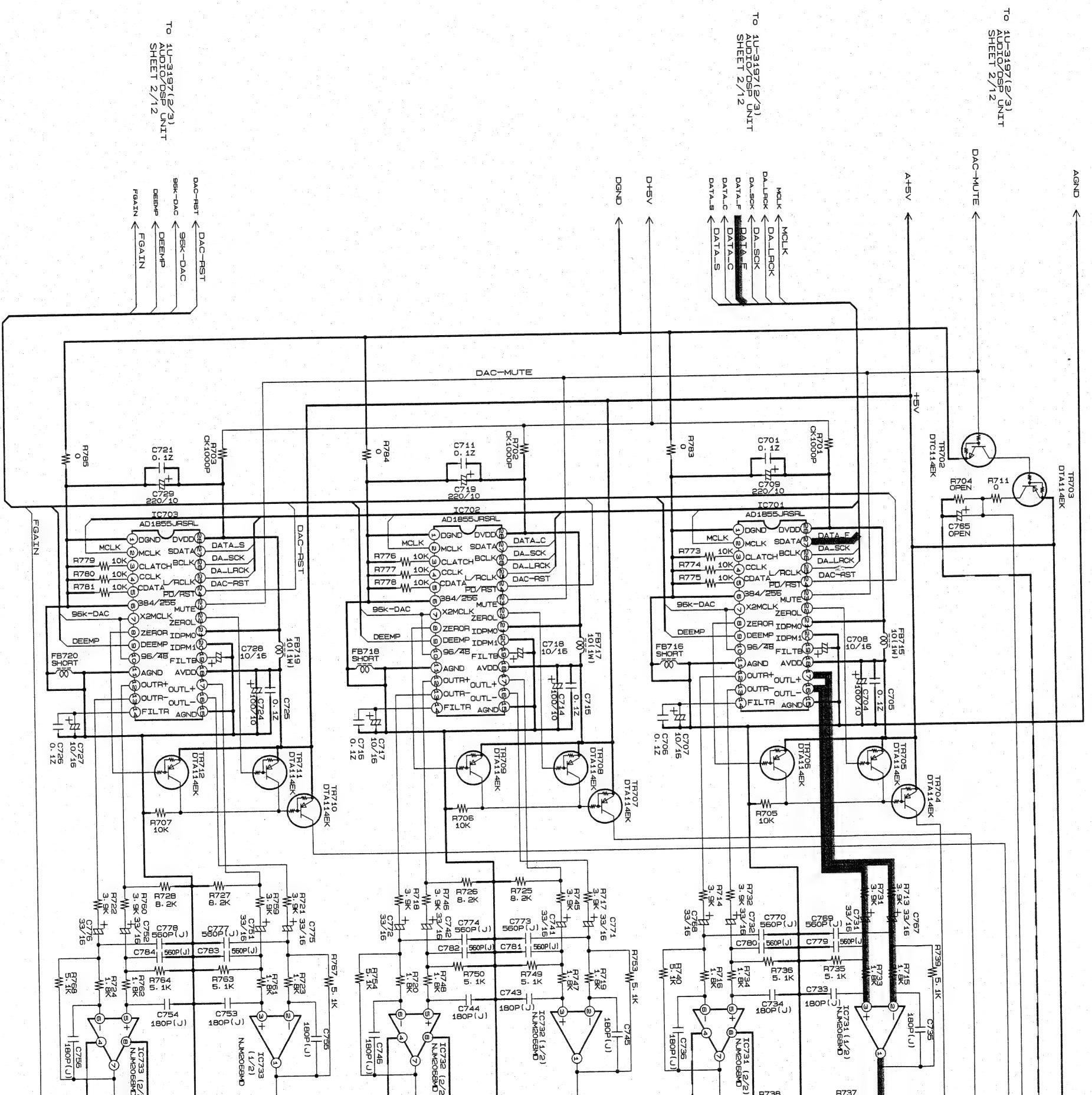
DO NOT return the unit to the customer until the problem is located and corrected.

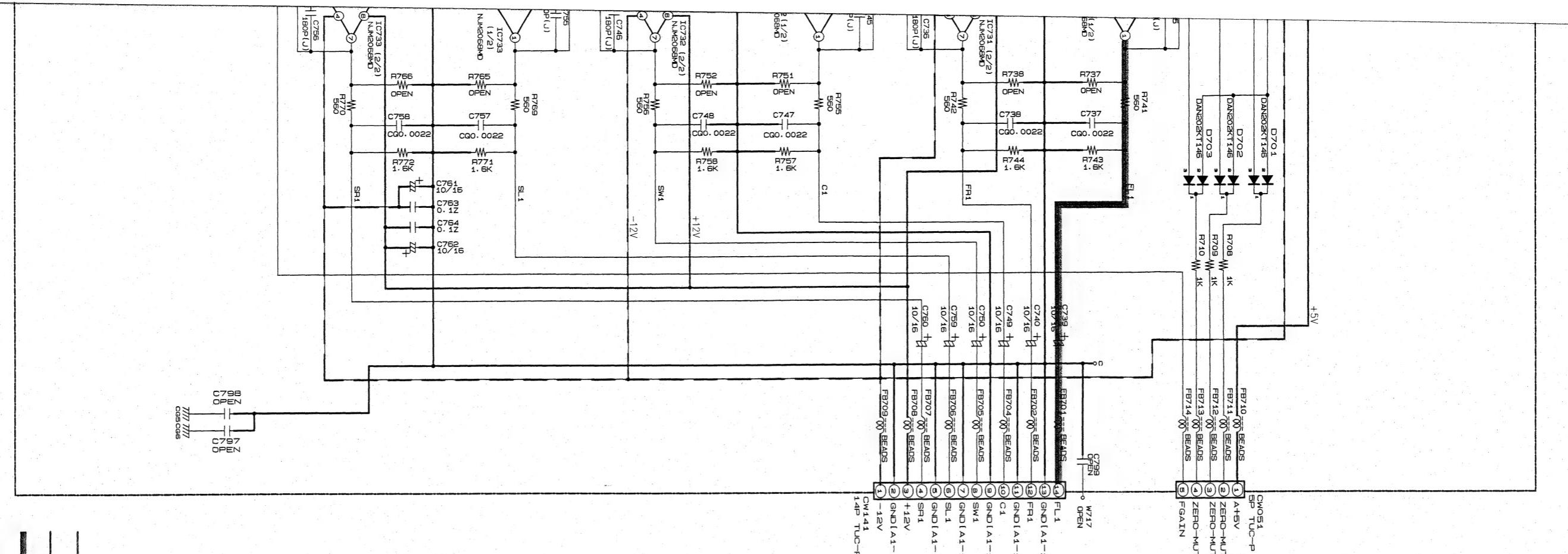


## AUDIO/DSP UNIT



1U-3197 (3/3)  
AINTO/PSP UNT





**+B LINE**  
**-B LINE**  
**SIGNAL LINE**

### SCHEMATIC DIAGRAMS (3/12) 1U-3197 AUDIO/DSP UNIT (3/3)

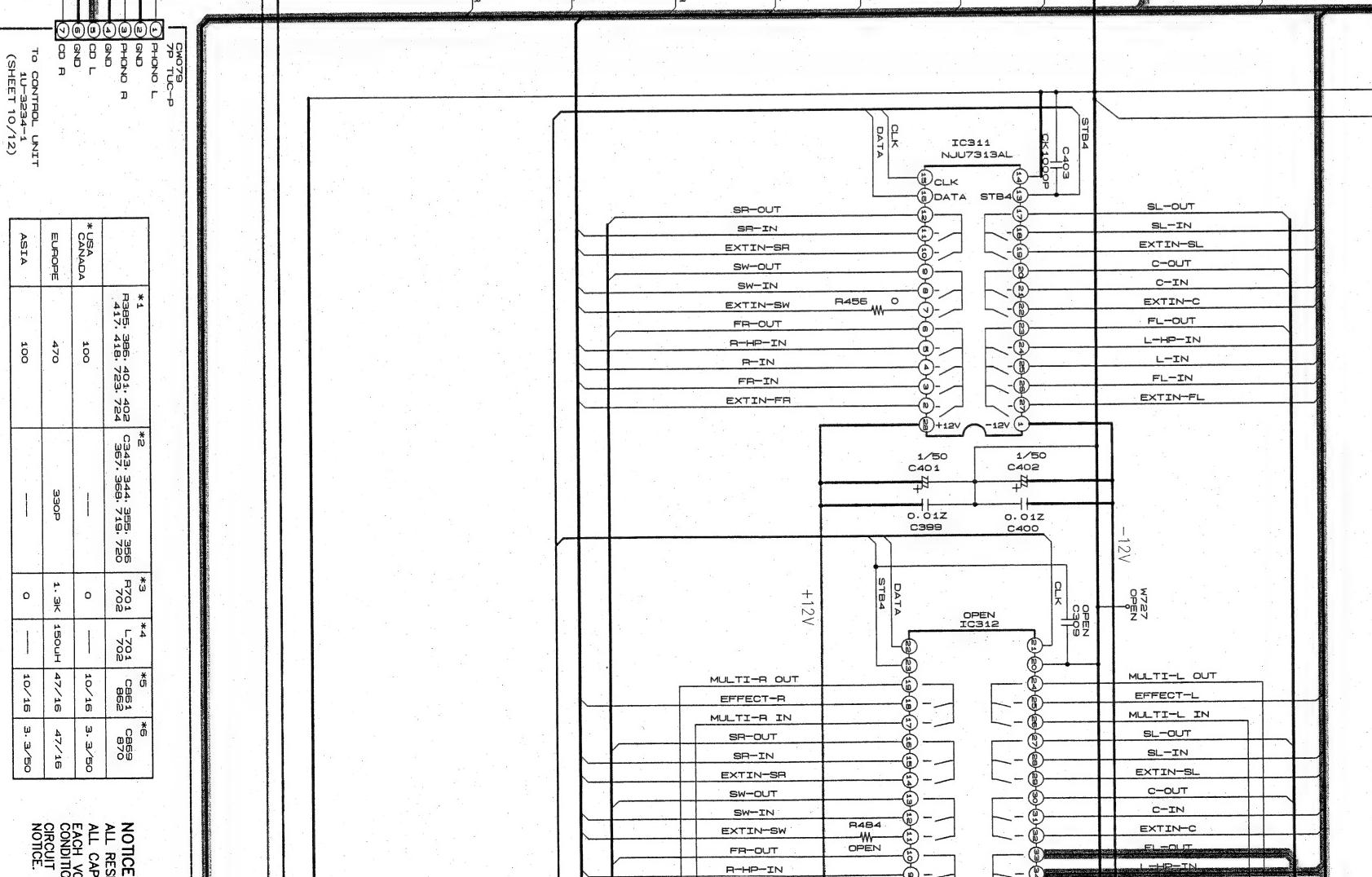
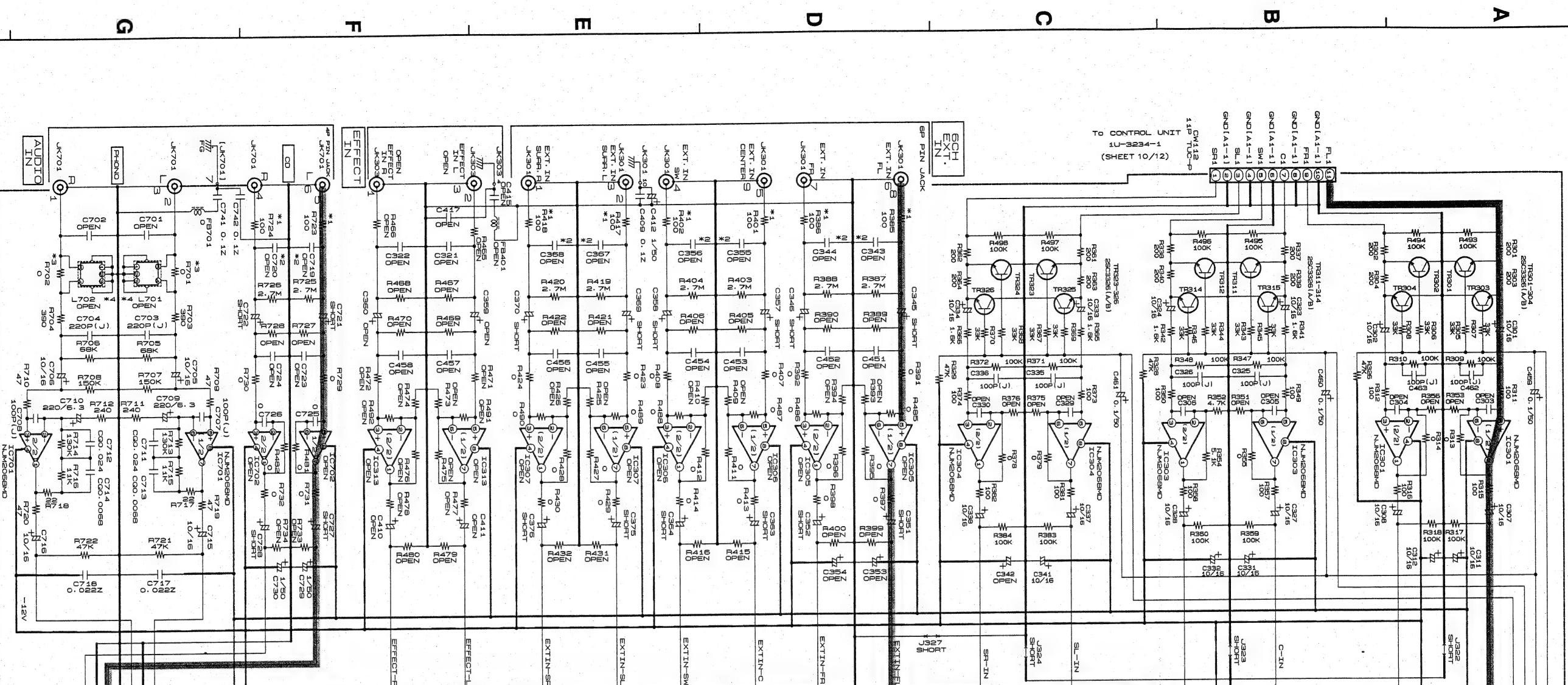
**WARNING:**  
 Parts marked with this symbol have critical characteristics.  
 Use ONLY replacement parts recommended by the manufacturer.

**CAUTION:**  
 Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 millamps, or if the resistance from chassis to either side of the power cord is less than 460 kilohms, the unit is defective.

**WARNING:**  
 DO NOT return the unit to the customer until the problem is located and corrected.

**NOTICE:**  
 ALL RESISTANCE VALUES IN OHM.  $k=1,000$  OHM  $M=1,000,000$  OHM  
 ALL CAPACITANCE VALUES IN MICRO FARAD.  $P=MICRO-MICRO FARAD$   
 EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT  
 CONDITION.  
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR  
 NOTICE.

1U-3233-1  
EXT IN VR UNIT

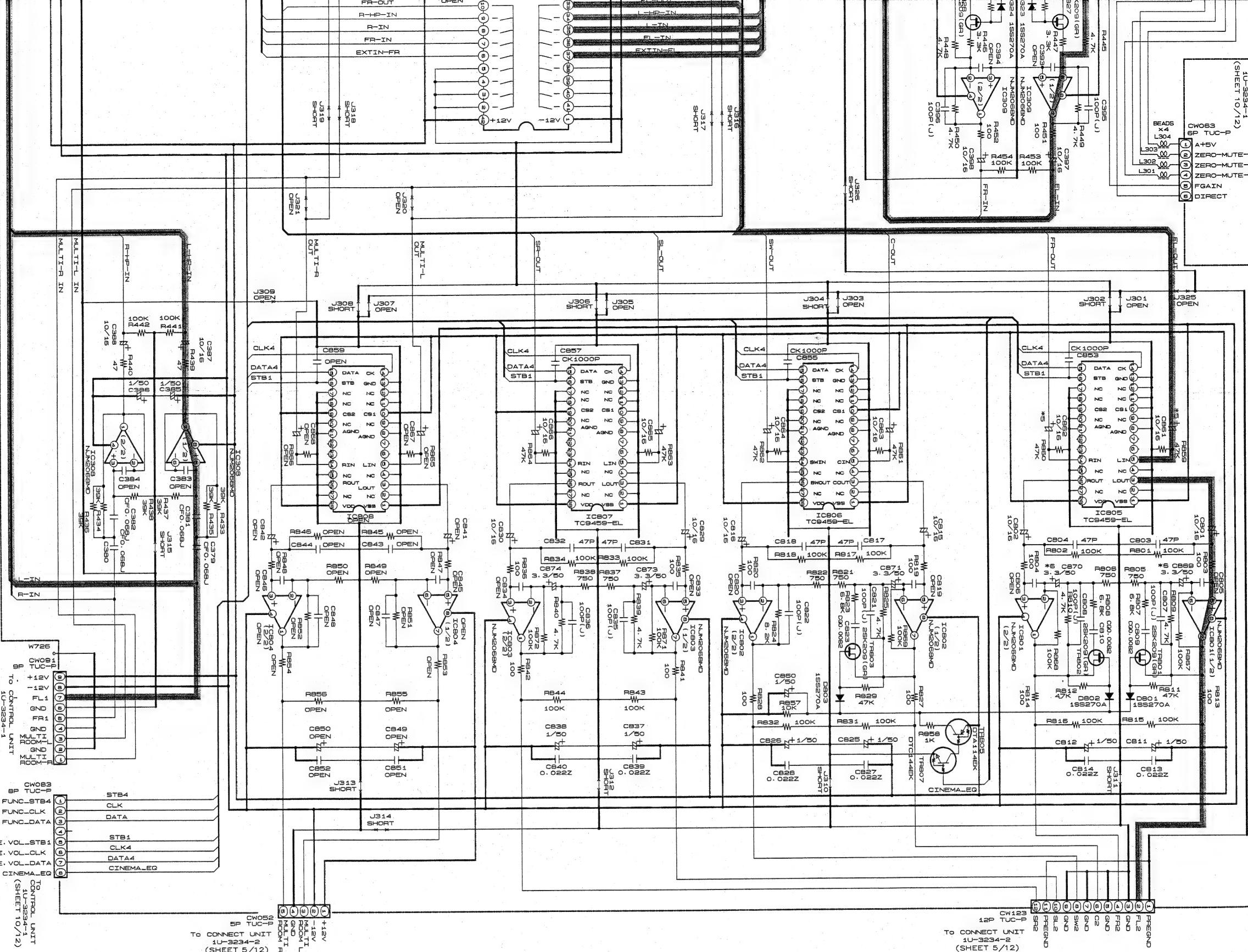


## **SCHEMATIC DIAGRAMS (4/12)**

RECE  
RESISTANCE VALUES IN OHM. K=1,000 OHM M=1,000,000 OHM.  
CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD.  
H VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT.  
ADDITION,  
CUT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR  
ICE.

**WARNING:** Parts marked with this symbol  have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

+B LINE  
-B LINE



# SCHEMATIC DIAGRAMS (5/12)

1

2

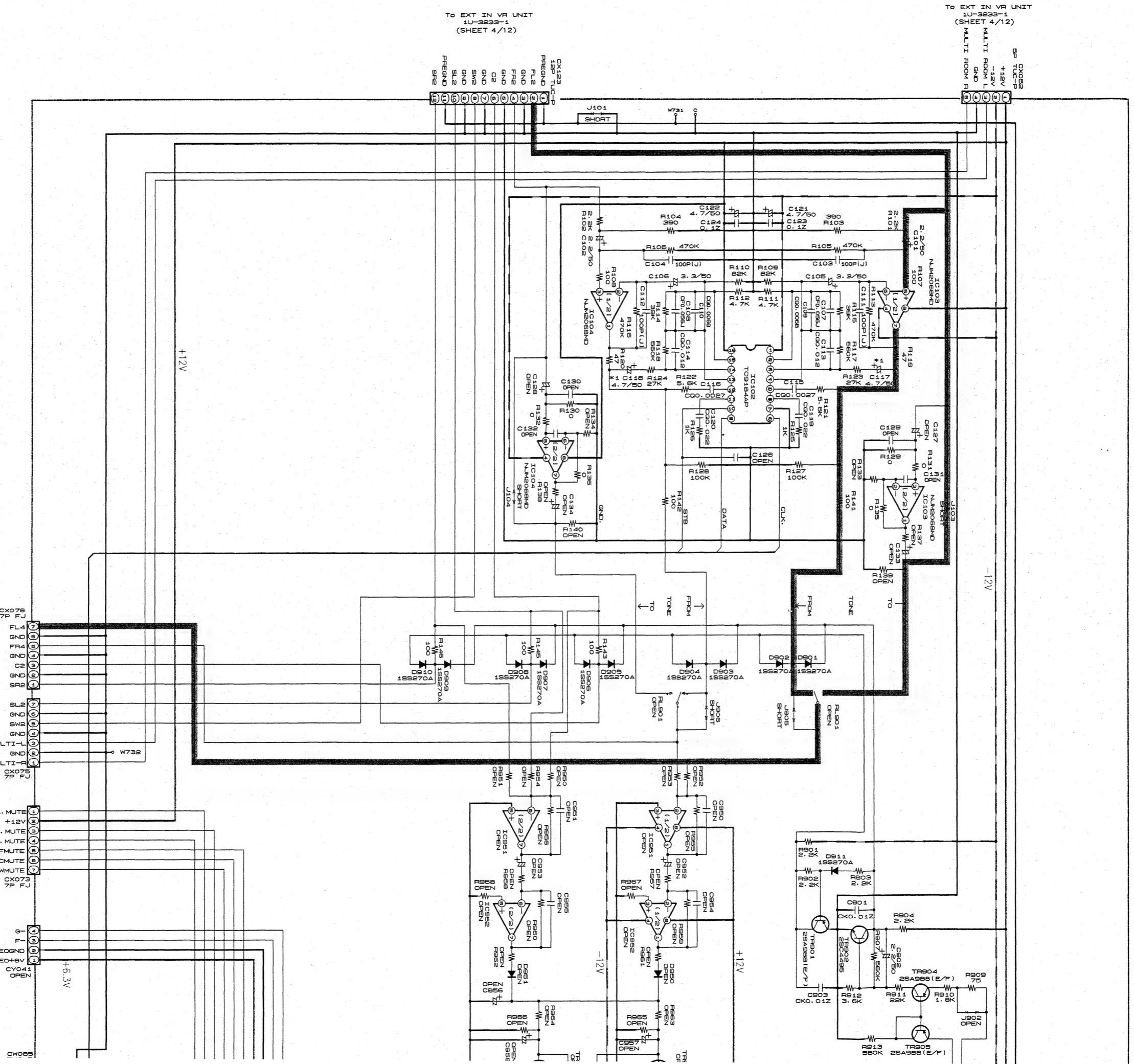
3

4

5

6

*1	C117, 118
*2	USA CANADA ASIA
EUROPE	47/16



**NOTICE**  
 ALL RESISTANCE VALUES IN OHM, K=1,000 OHM M=1,000,000 OHM  
 ALL CAPACITANCE VALUES IN MICRO FARAD, P=MICRO-MICRO FARAD  
 EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT  
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR  
 NOTICE.

**WARNING:**  
 Parts marked with  
 Use ONLY replacement  
**CAUTION:**  
 Before returning the  
 leakage current ch  
 current exceeds 0.  
**WARNING:**  
 DO NOT return the  
 corrected



## SCHEMATIC DIAGRAMS (6/12)

1

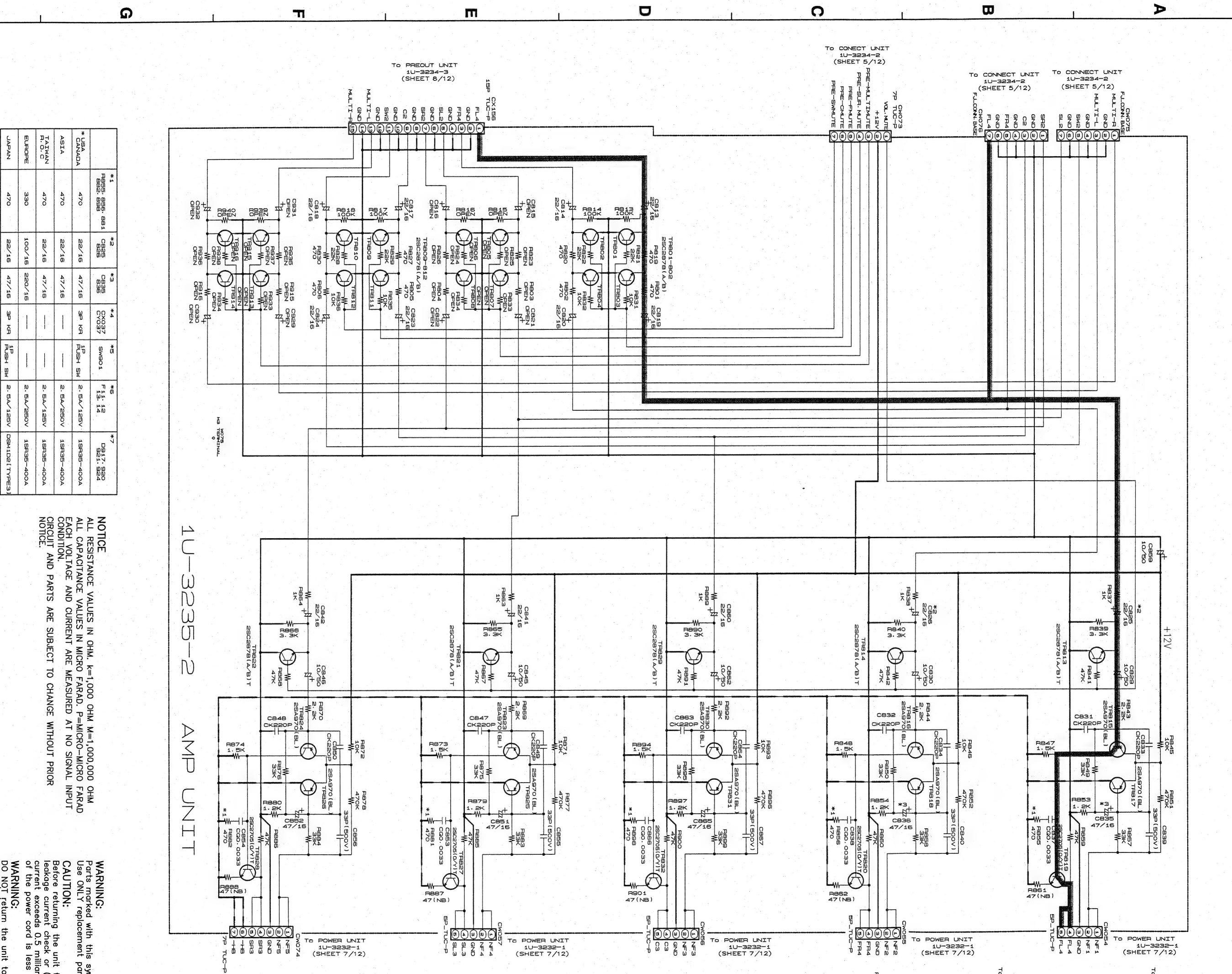
2

3

4

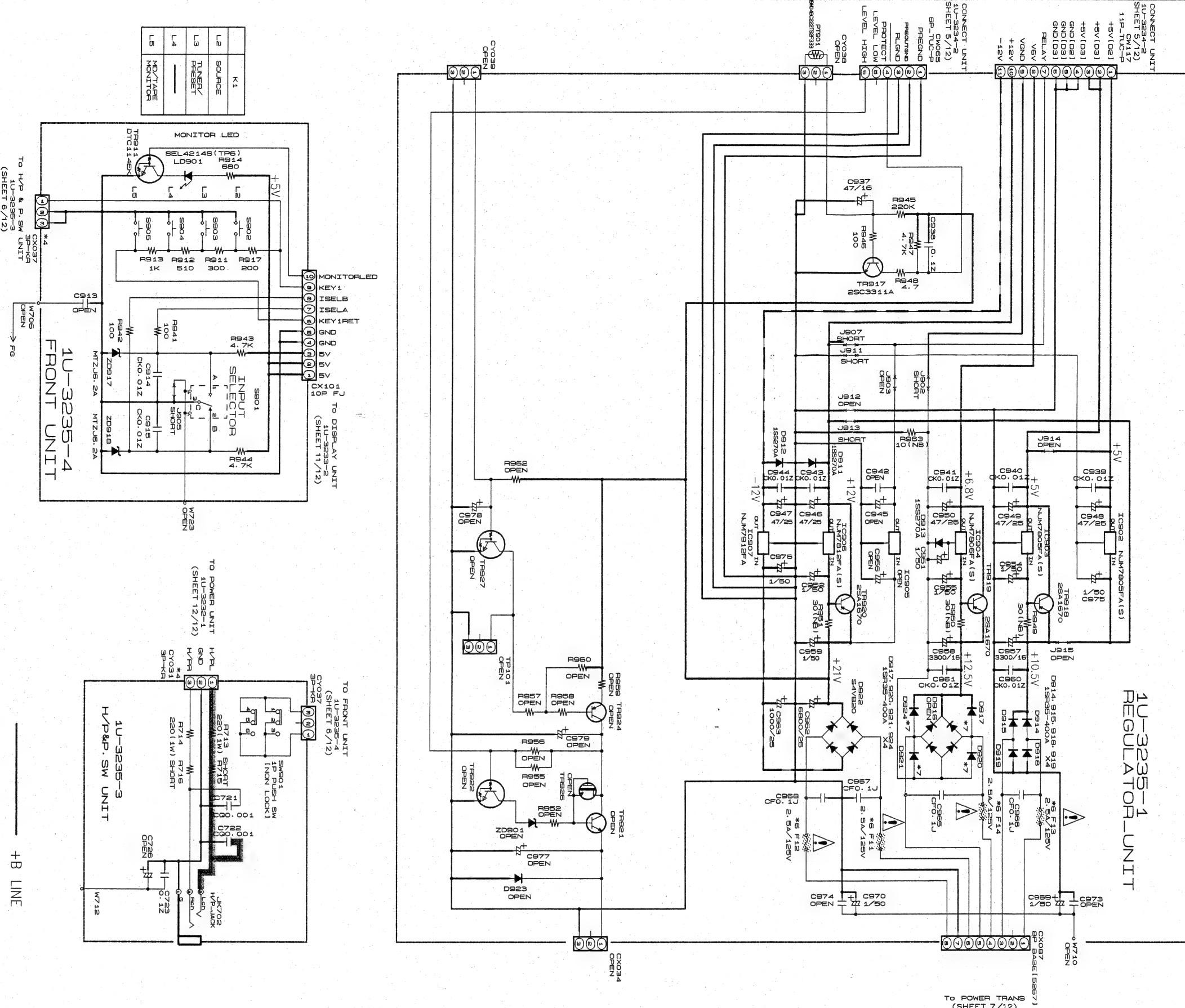
5

6



1U-3235-2 AMP UNIT

1U-3235-1  
REGULATOR\_UNIT



TO POWER TRANS  
(SHEET 7/12)

**Symbol A** have critical characteristics recommended by the manufacturer.

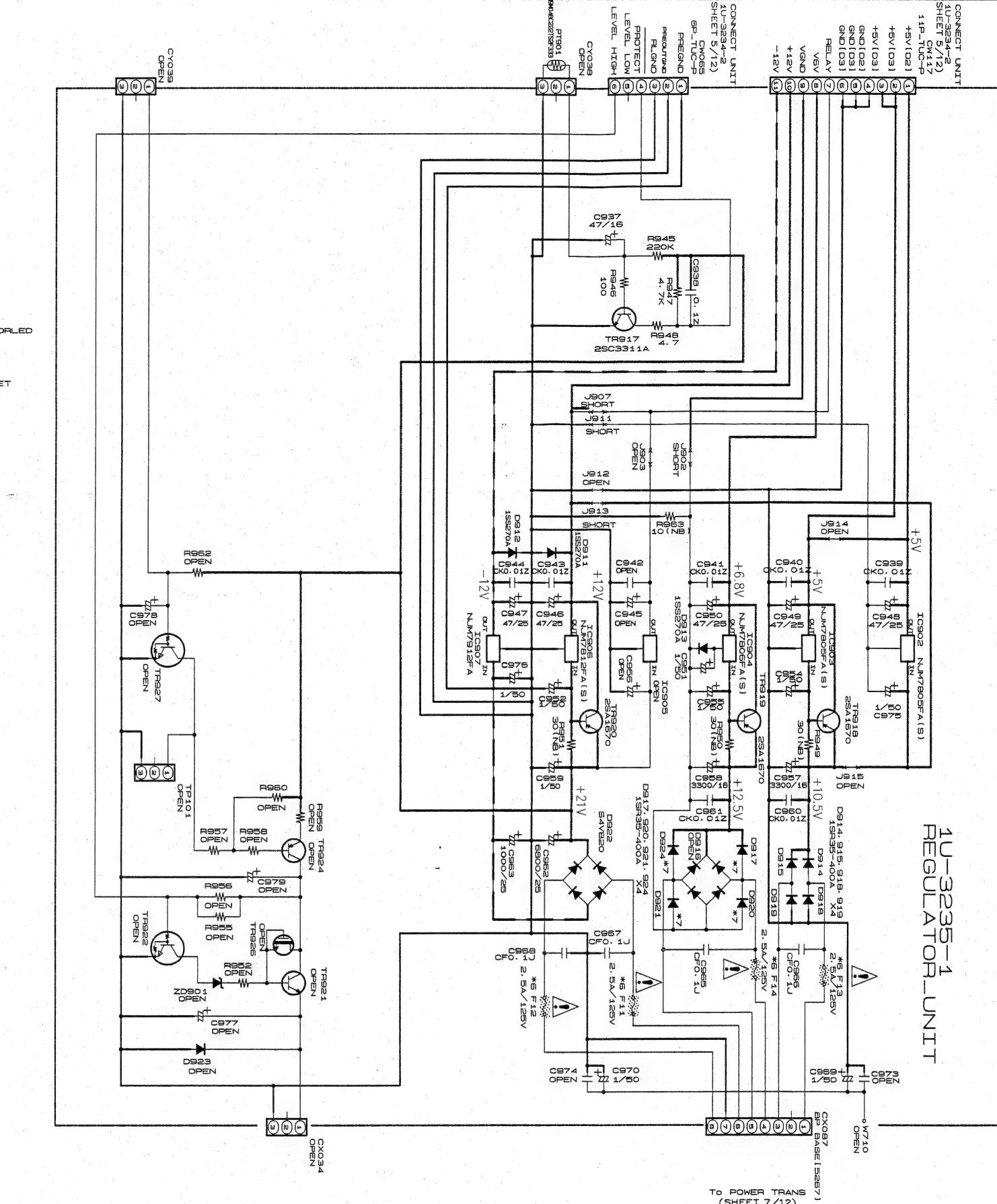
the customer, make sure you make either (1) a line to chassis resistance check. If the leakage is over 10 milliamperes, or if the resistance from chassis to either side of the customer until the problem is located.

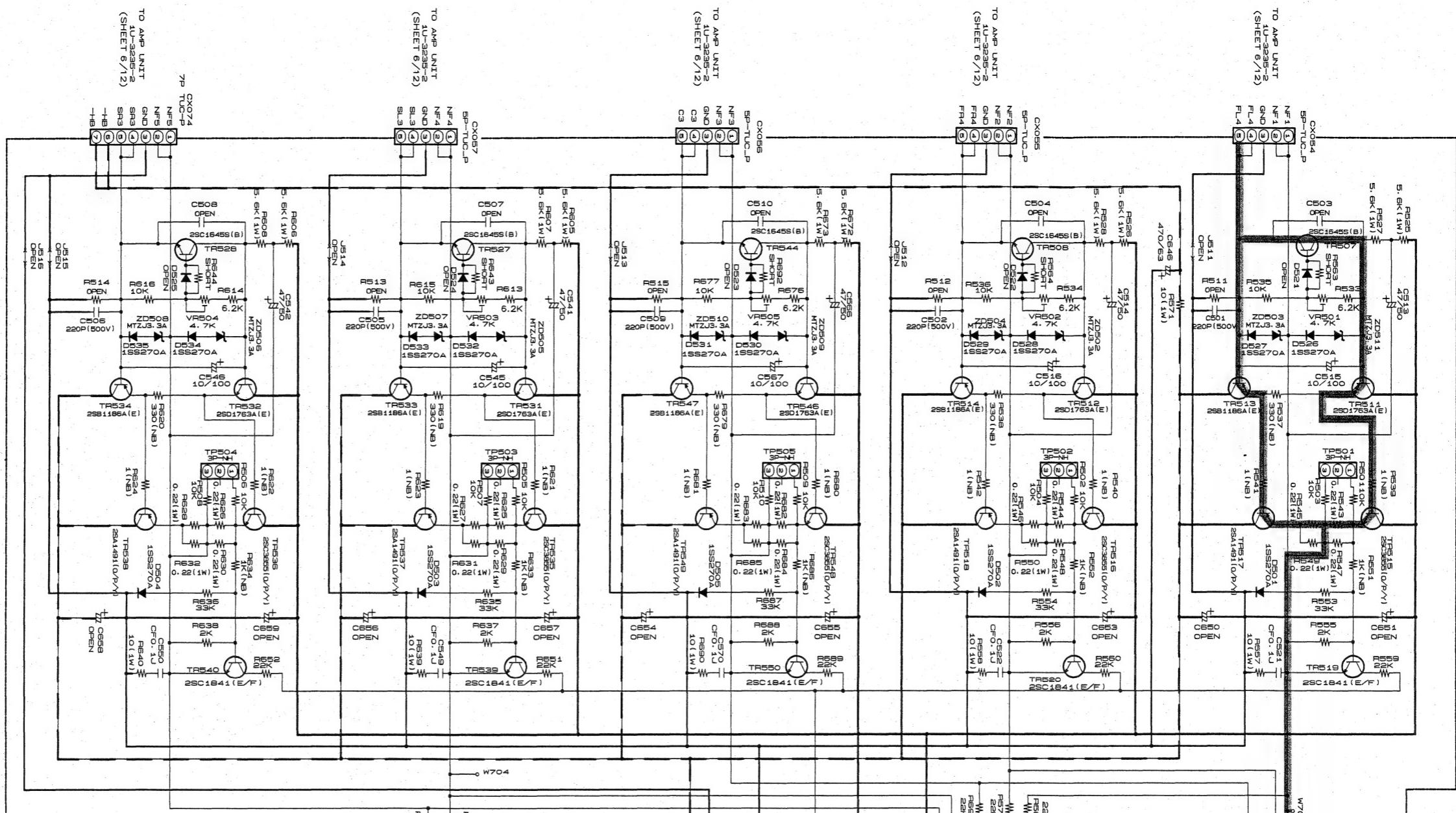
## **SCHMATIC DIAGRAMS (6/12)**

11-3235-1 REGULATOR INIT

1U-3235-1 REGULATOR UNIT  
1U-3235-2 AMP UNIT  
1U-3235-3 H/P & P.SW UNIT  
1U-3235-4 FBONT UNIT

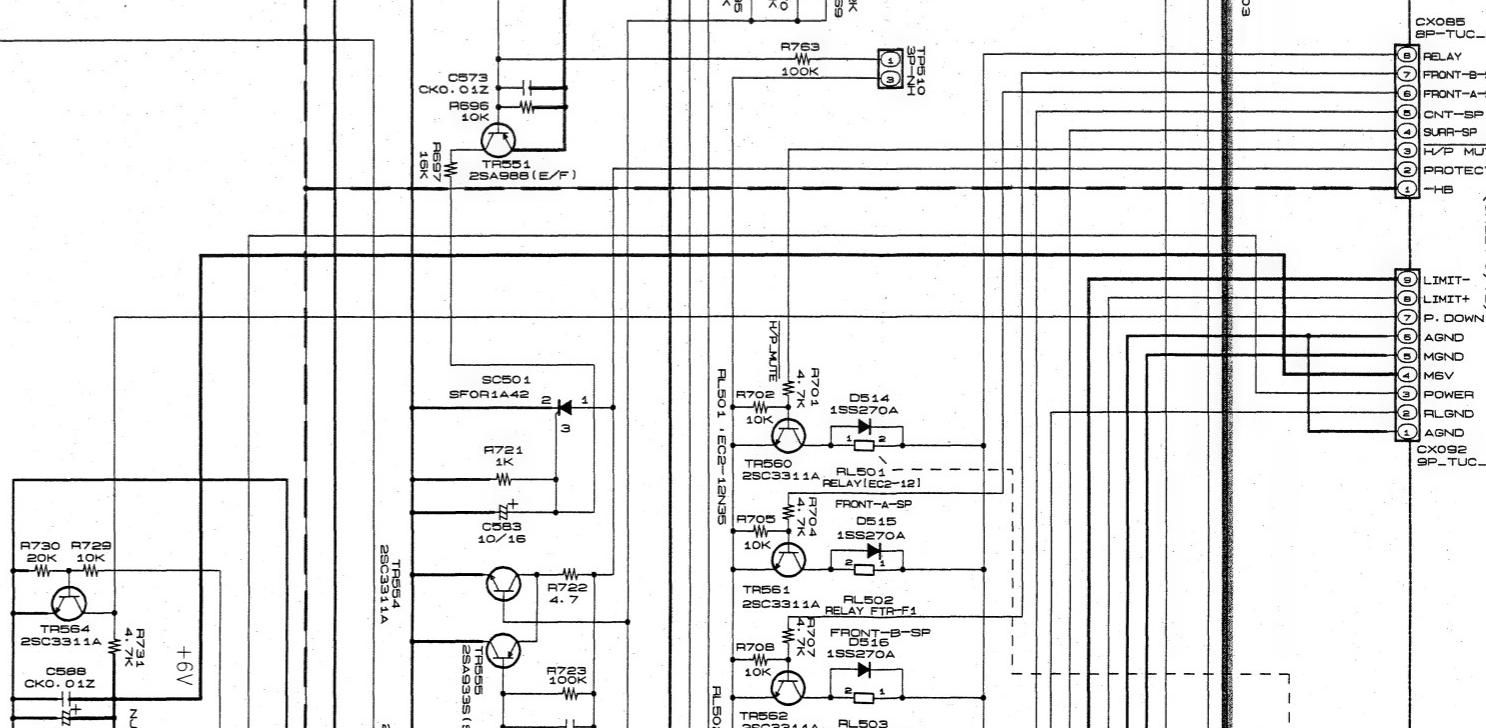
## 1U-3235-1 REGULATOR UNIT





## POWER UNIT

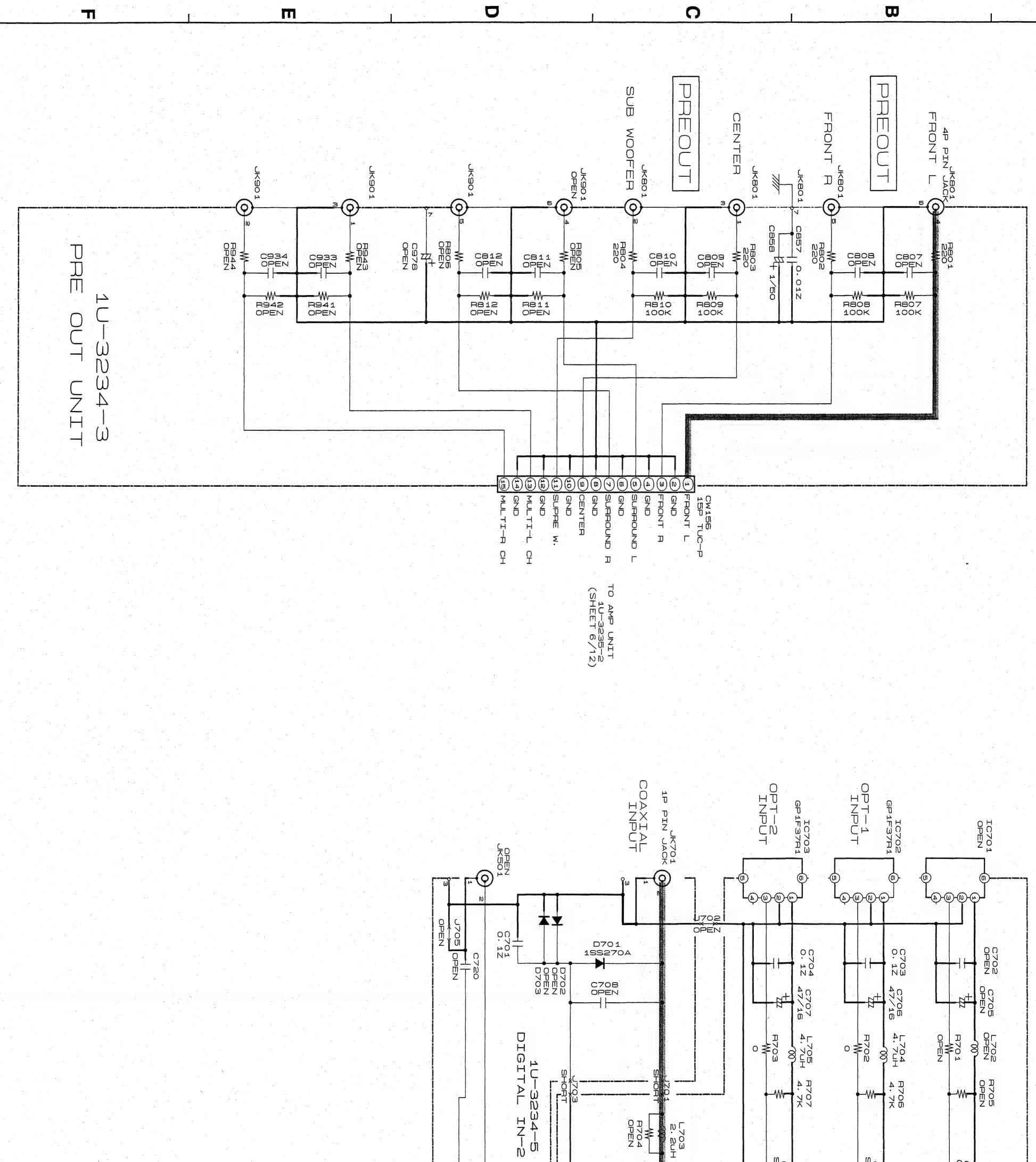
1 U-3236-1  
1 C-3236-2  
1 H-3236-2  
1 D-3236-2  
1 E-3236-2



	*1 F1	*2 FB	*3 T501	*4 CX023	*5 AC501	*6 A734	*7 C056-556-5553 614-615-615 649	*8 C018-614-615 C021-631-632 CY021	*9 J502	*10 CX032	*11 S901	*12 POWER TRANS	*13
* USA CANADA	6-3A/125V	BA/125V	2336073107	—	2P AC OUTLET	2-2M	C00. 022	—	—	SHORT	—	—	2336304009
EUROPE	2-5A/250V	2-5A/250V	2336058025	2P VH	—	—	CFO. 047J	C00. 01	2P VH	OPEN	—	P-SW	233630500B
ASIA HONG KONG	5A/250V	2-5A/250V	2336278009	2P VH	—	—	C00. 022	—	2P VH	OPEN	3P CON BASE	P-SW	2336306007
CHINA	2-5A/250V	—	2336058025	—	—	—	C00. 022	—	2P VH	OPEN	—	P-SW	233630500B
TAIWAN R.O.C	6-3A/125V	BA/125V	2336073107	—	2P AC OUTLET	2-2M	C00. 022	—	2P VH	OPEN	—	P-SW	2336304009
JAPAN	BA/125V	BA/125V	2336052309	—	2P AC OUTLET	—	C00. 022	—	—	SHORT	—	—	23360568003



## SCHMATIC DIAGRAMS (8/12)



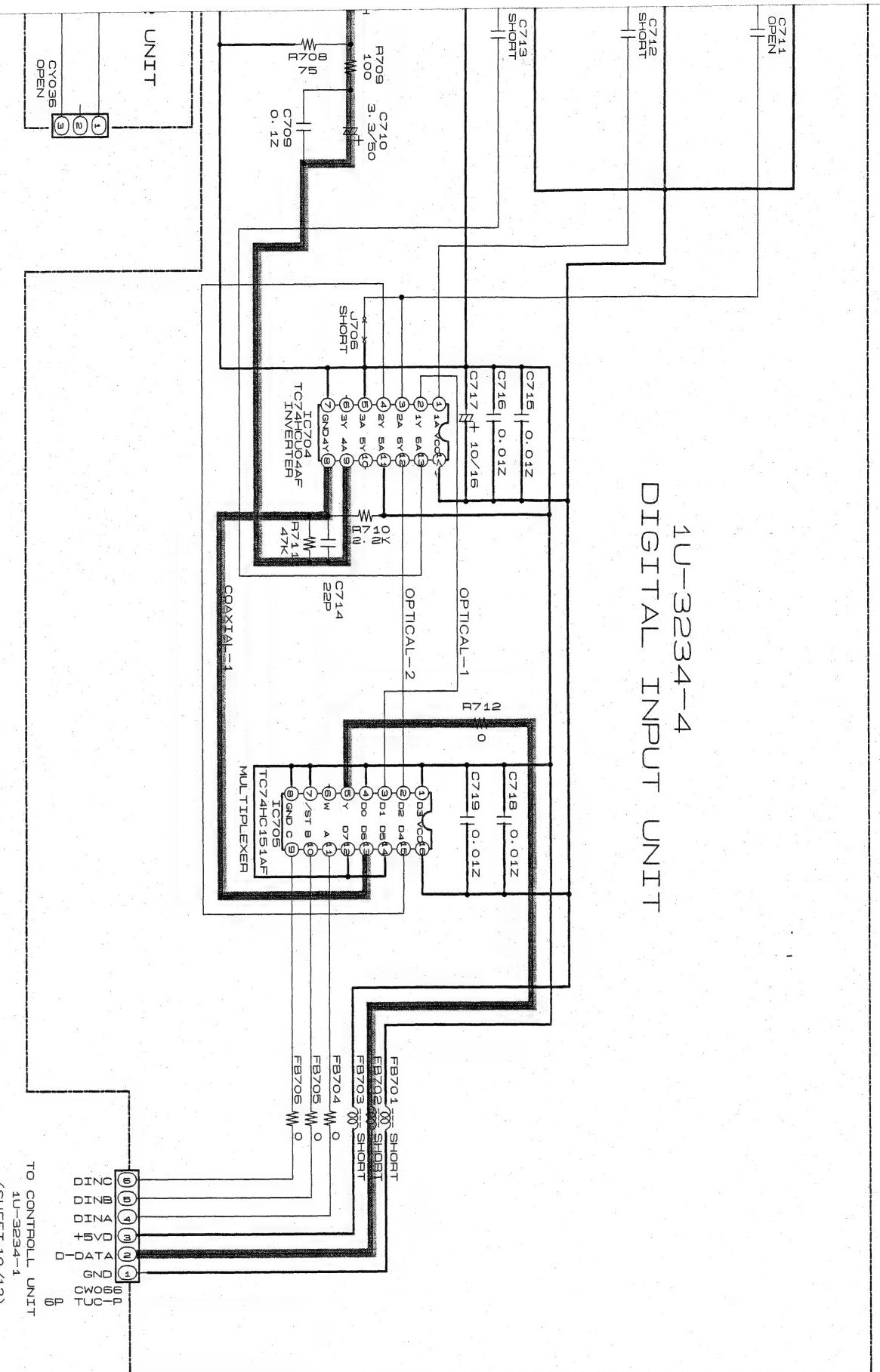
ALL RESISTANCE VALUES IN OHM. K=1,000 OHM M=1,000,000 OHM  
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD  
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT  
CONDITION.  
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR  
NOTICE.

**WARNING:** Parts marked with this symbol  have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

**CAUTION:** Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 millamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the unit is defective.

**WARNING:** DO NOT return the unit to the customer until the problem is located and corrected.

## 1U-3234-4 DIGITAL INPUT UNIT



TO CONTROL UNIT

(SHEET 10/12)

+B LINE

SIGNAL LINE

### SCHEMATIC DIAGRAMS (8/12)

1U-3234-3 PRE OUT UNIT

1U-3234-4 DIGITAL INPUT UNIT

1U-3234-5 DIGITAL IN-2 UNIT

TUNER UNIT

**NOTICE**  
ALL RESISTANCE VALUES IN OHM.  $K=1,000$  OHM  $M=1,000,000$  OHM  
ALL CAPACITANCE VALUES IN MICRO FARAD.  $P=MICRO-MICRO FARAD$   
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT  
CONDITION.  
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR  
NOTICE.

**WARNING:** Parts marked with this symbol  have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

**CAUTION:** Before returning the unit to the customer, make sure you make either (1) leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliammps, or if the resistance from chassis to either end of the power cord is less than 460 kohms, the unit is defective.

**WARNING:** DO NOT return the unit to the customer until the problem is located and corrected.

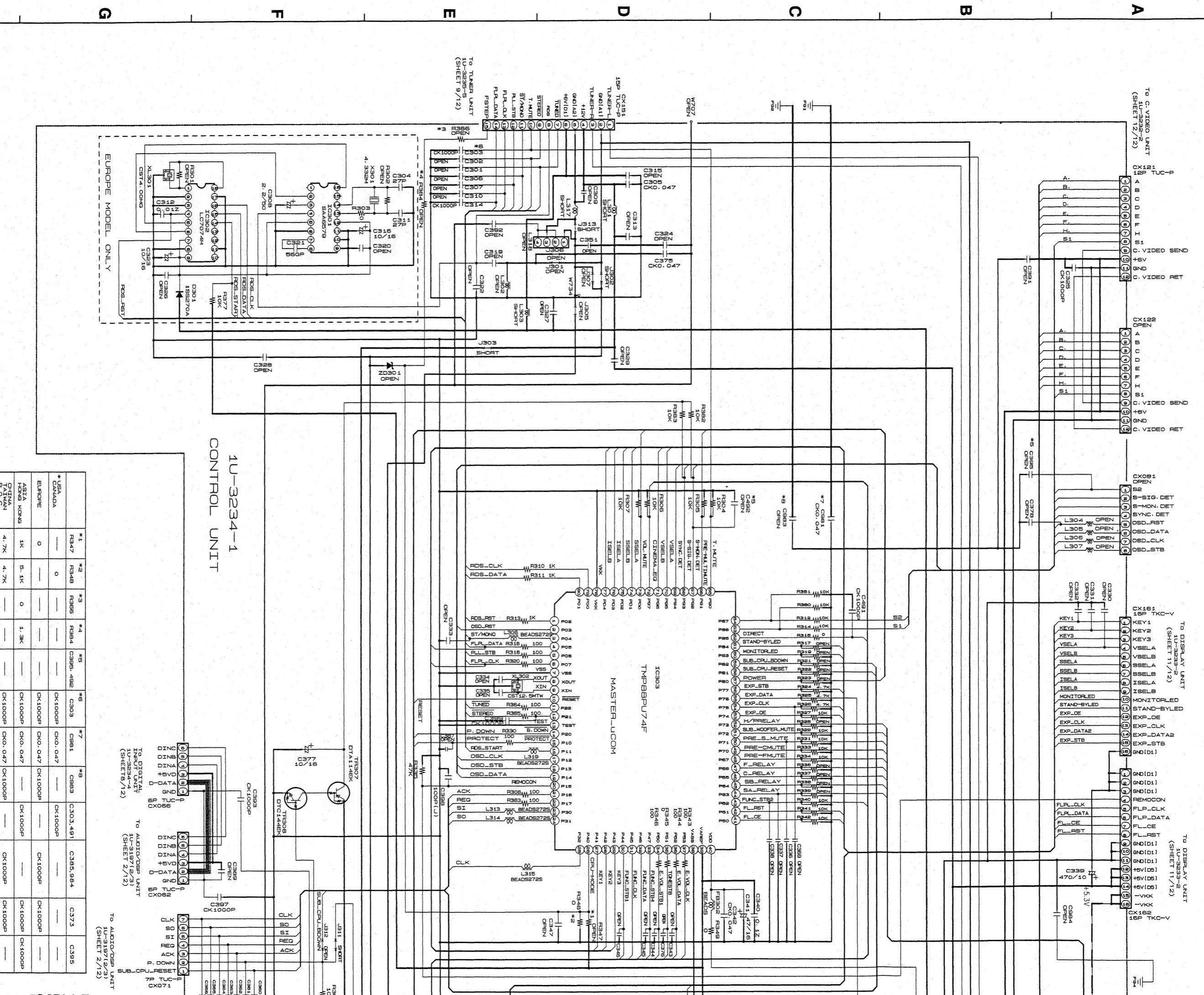
**WARNING:** Parts marked with this symbol  have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

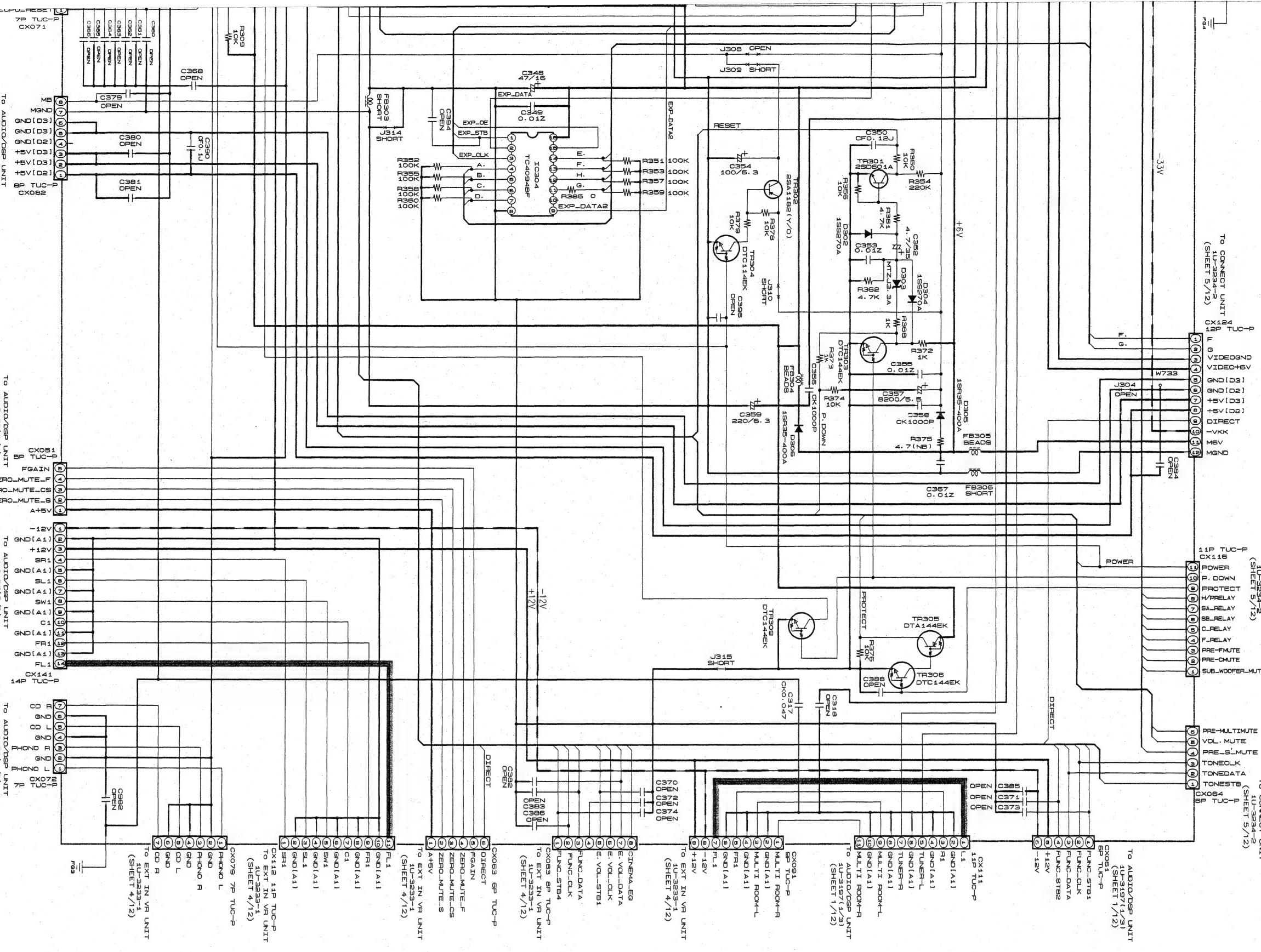
**CAUTION:** Before returning the unit to the customer, make sure you make either (1) leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliammps, or if the resistance from chassis to either end of the power cord is less than 460 kohms, the unit is defective.

**WARNING:** DO NOT return the unit to the customer until the problem is located and corrected.



## **SCHEMATIC DRAWINGS (10,12)**



**NOTICE**

ALL RESISTANCE VALUES IN OHM,  $k=1,000$  OHM  $M=1,000,000$  OHM  
ALL CAPACITANCE VALUES IN MICRO FARAD,  $P=MICRO-MICRO FARAD$   
USE ONLY replacement parts recommended by the manufacturer.  
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT  
CONDITION.

CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR  
NOTICE.

Before returning the unit to the customer, make sure you make either (1) a  
leakage current check or (2) a line to chassis resistance check. If the leakage  
current exceeds 0.5 millamps, or if the resistance from chassis to either side  
of the power cord is less than 460 kohms, the unit is defective.

**WARNING:**  
DO NOT return the unit to the customer until the problem is located and  
corrected.

**WARNING:**

Parts marked with this symbol have critical characteristics.

Use ONLY replacement parts recommended by the manufacturer.

**CAUTION:**

Before returning the unit to the customer, make sure you make either (1) a  
leakage current check or (2) a line to chassis resistance check. If the leakage  
current exceeds 0.5 millamps, or if the resistance from chassis to either side  
of the power cord is less than 460 kohms, the unit is defective.

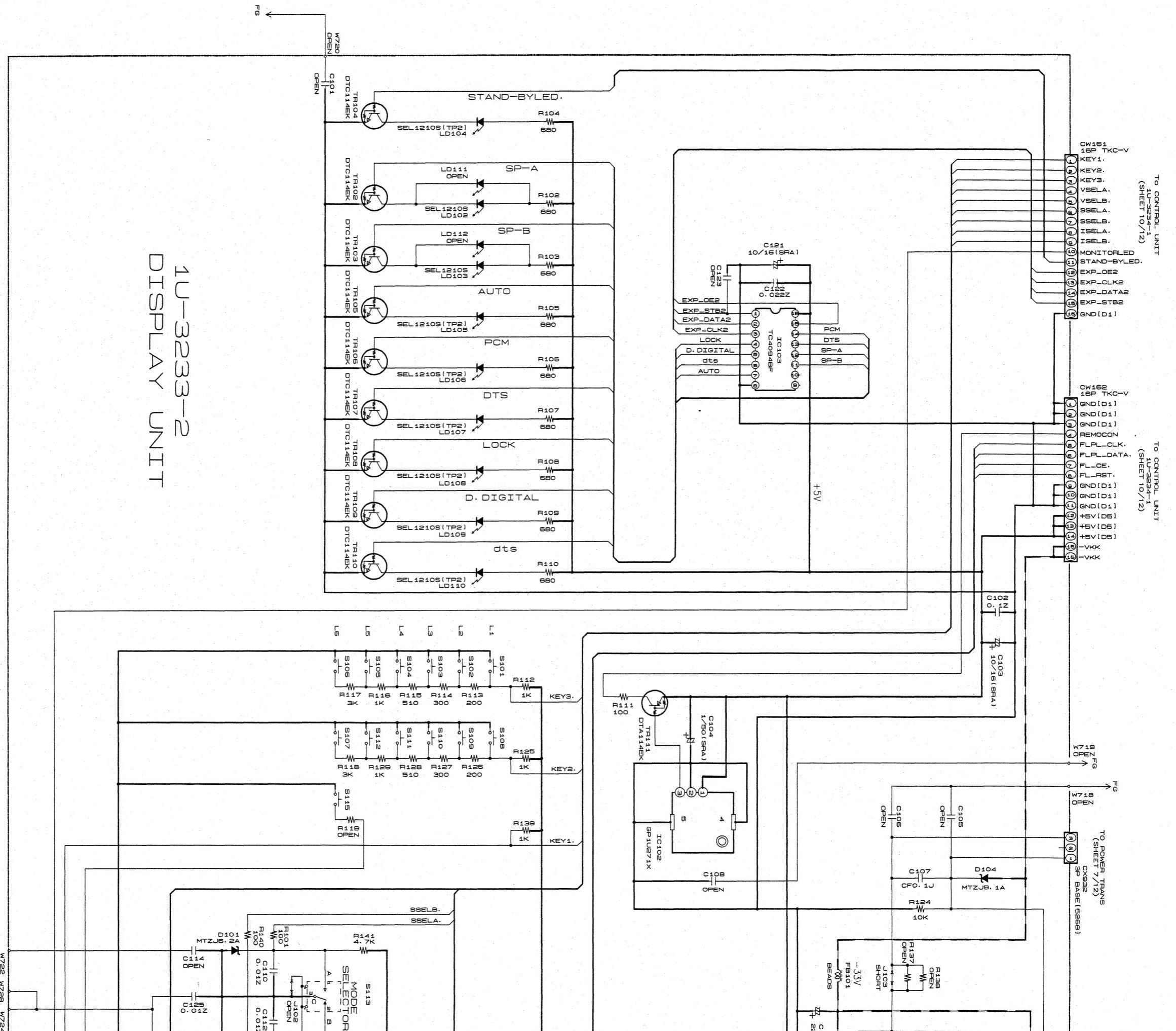
**WARNING:**  
DO NOT return the unit to the customer until the problem is located and  
corrected.

**SCHEMATIC DIAGRAMS (10/12)**

1U-3234-1 CONTROL UNIT

# SCHEMATIC DIAGRAMS (11/12)

1      2      3      4      5      6



## 1U-3233-2 DISPLAY UNIT

**NOTICE:**  
ALL RESISTANCE VALUES IN OHM. K=1.000 OHM M=1.000.000 OHM  
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD  
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT  
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR  
NOTICE.

**WARNING:**  
Parts marked with this symbol have critical characteristics.  
Use ONLY replacement parts recommended by the manufacturer.

**CAUTION:**

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 millamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the unit is defective.

**WARNING:**  
DO NOT return the unit to the customer until the problem is located and corrected.

TO CONTROL UNIT  
(SHEET 10/12)  
1U-3233-1

TO CONTROL UNIT  
(SHEET 10/12)  
1U-3233-1

TO POWER TRANS  
(SHEET 7/12)  
C932  
3P BASE (2668)

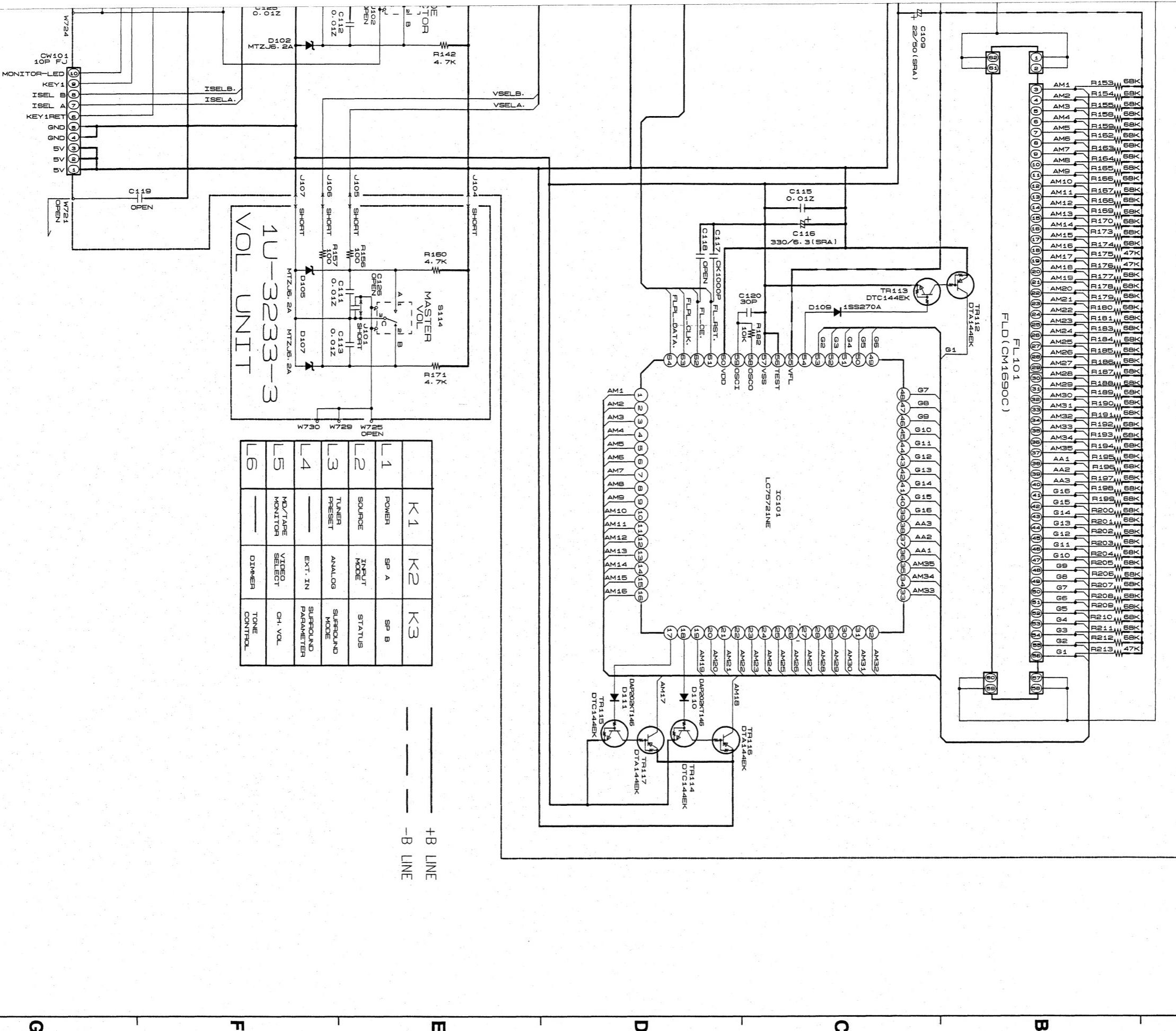
7

8

9

10

11

SCHEMATIC DIAGRAMS (11/12)  
1U-3233-2 DISPLAY UNIT  
1U-3233-3 VOL UNITTO FRONT UNIT  
1U-3235-4  
(SHEET 6/12)

## SCHEMATIC DIAGRAMS (12/12)

1

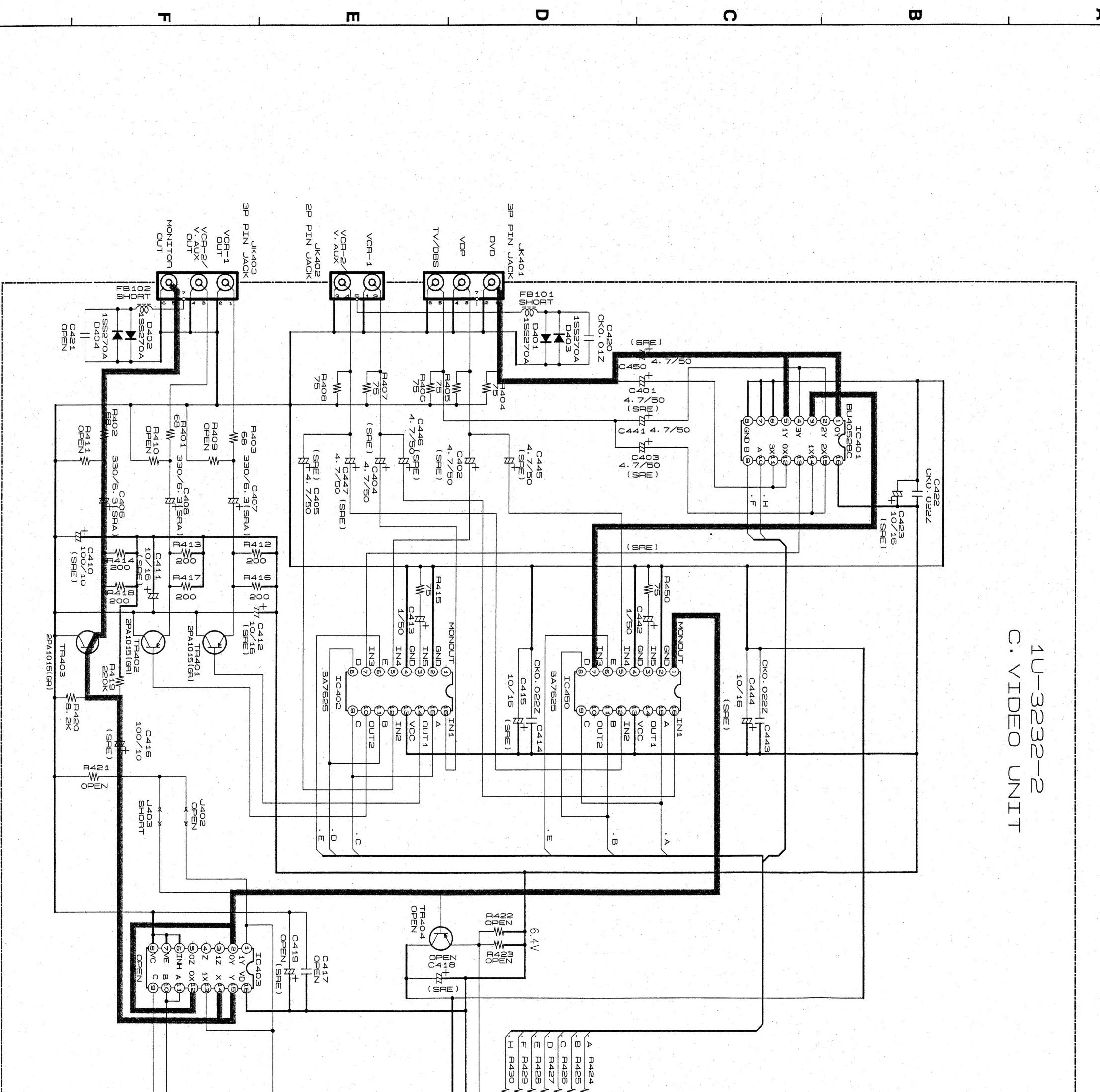
2

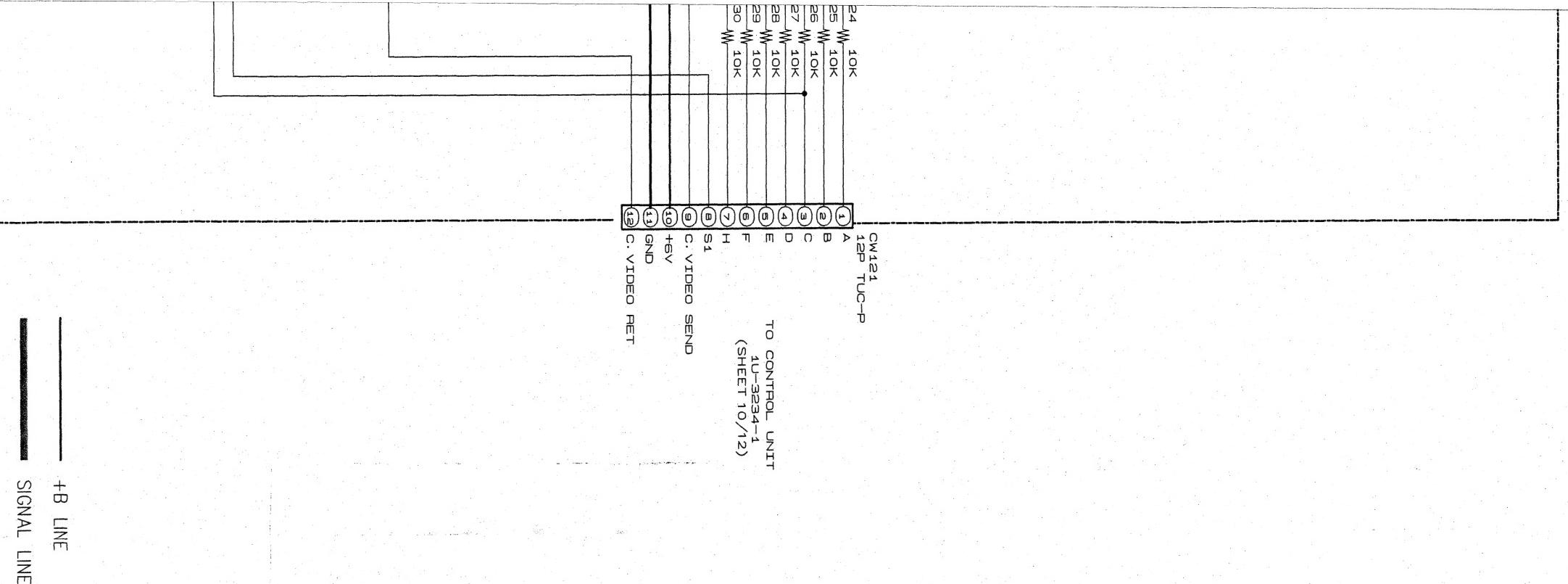
3

4

5

6

1U-3232-2  
C. VIDEO UNIT



## SCHEMATIC DIAGRAMS (12/12)

1U-3232-2 C.VIDEO UNIT

istics.  
user.  
make either (1) a  
neck. If the leakage  
basis to either side  
citive.  
is located and